

LEVEL III (2)

AFWL-TR-78-158, Pt. 2

AFWL-TR-  
78-158  
Pt. 2

A071521

A071522

## SIMULATION DEVELOPMENT FOR TARGET ASSESSMENT

Part 2 of 3

J. A. Earickson

Eric H. Wang Civil Engineering Research Facility  
University of New Mexico  
Albuquerque, NM 87131

March 1979

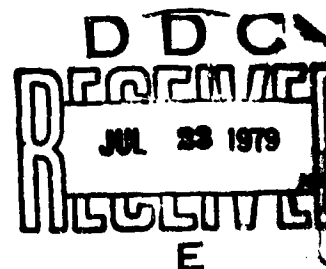
Final Report

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AIR FORCE WEAPONS LABORATORY  
Air Force Systems Command  
Kirtland Air Force Base, NM 87117



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Project Officer

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Division

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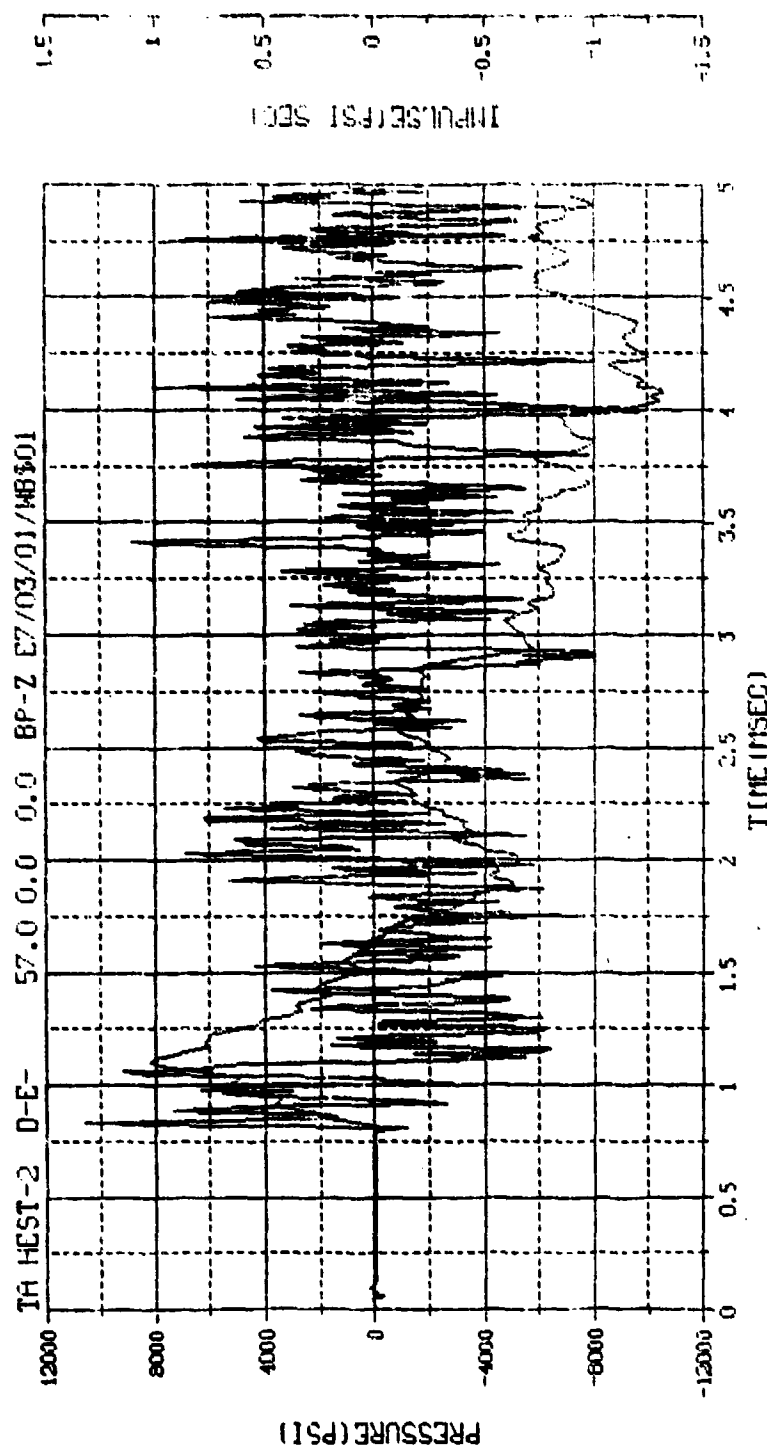
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18. SUPPLEMENTARY NOTES This report consists of 3 parts. Part 1 contains the front matter and pages 1 to 178. Part 2 contains pages 179 to 364. Part 3 contains pages 365 to 530.		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Simulator HEST (High Explosive Simulation Technique) Target Assessment Air Shock		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This effort produced design information and experiment data for improving high explosive simulation of nuclear airblasts. Specifically, a peak pressure versus charge density relationship for Iremite in 100 percent foam cavities was obtained for pressure up to 68 MPa. The results of this effort were transmitted to USAE Waterways Experiment Station. WES is conducting tests on generic silos as part of a DNA targeting research and test program.		

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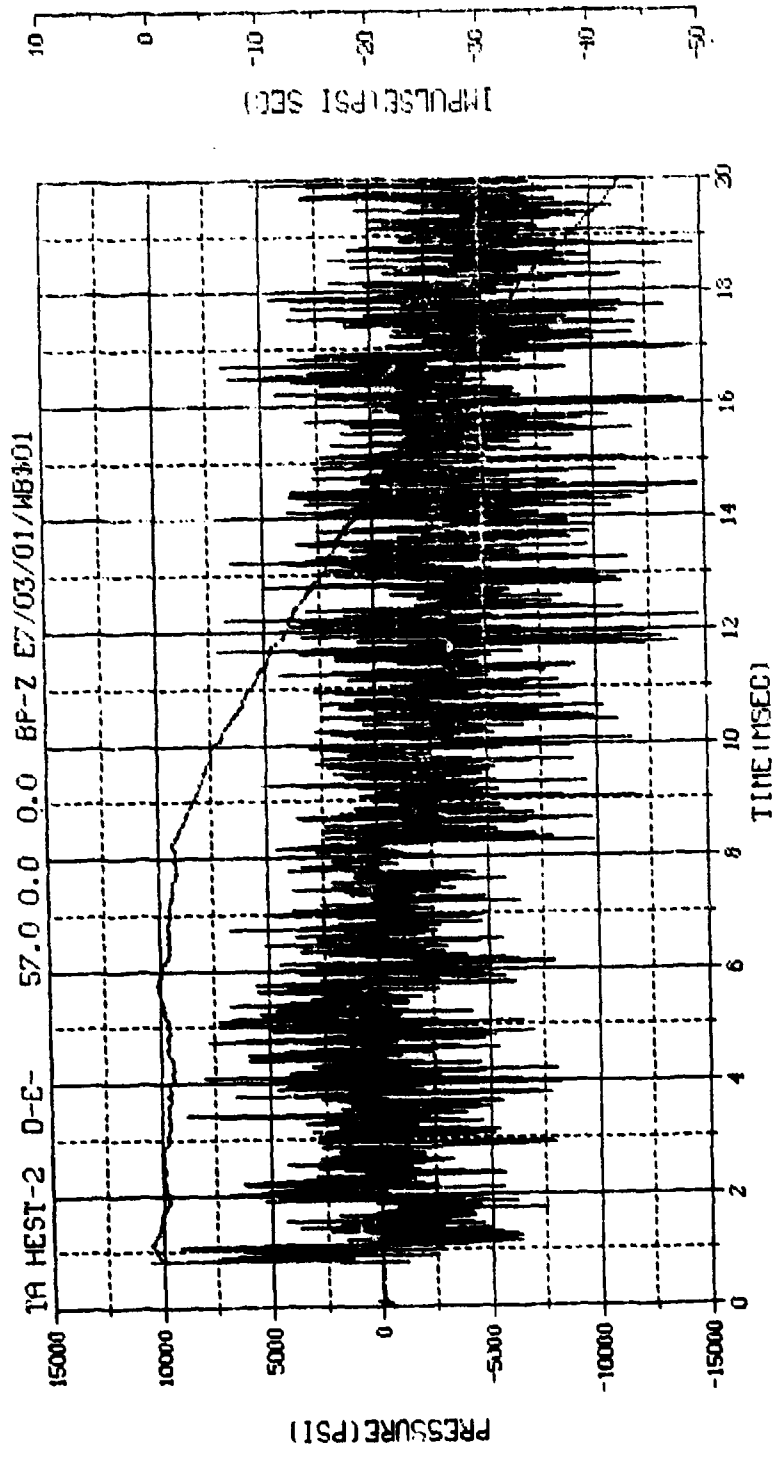
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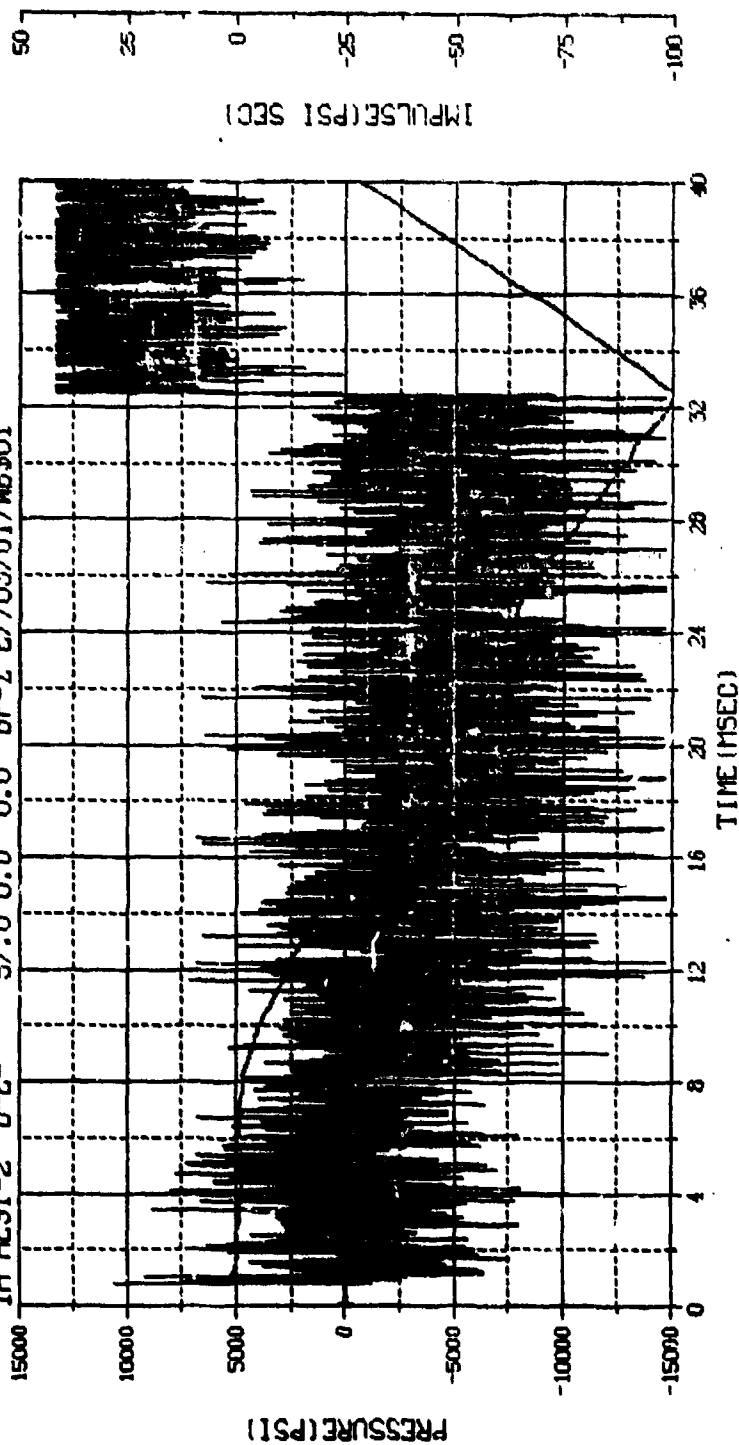
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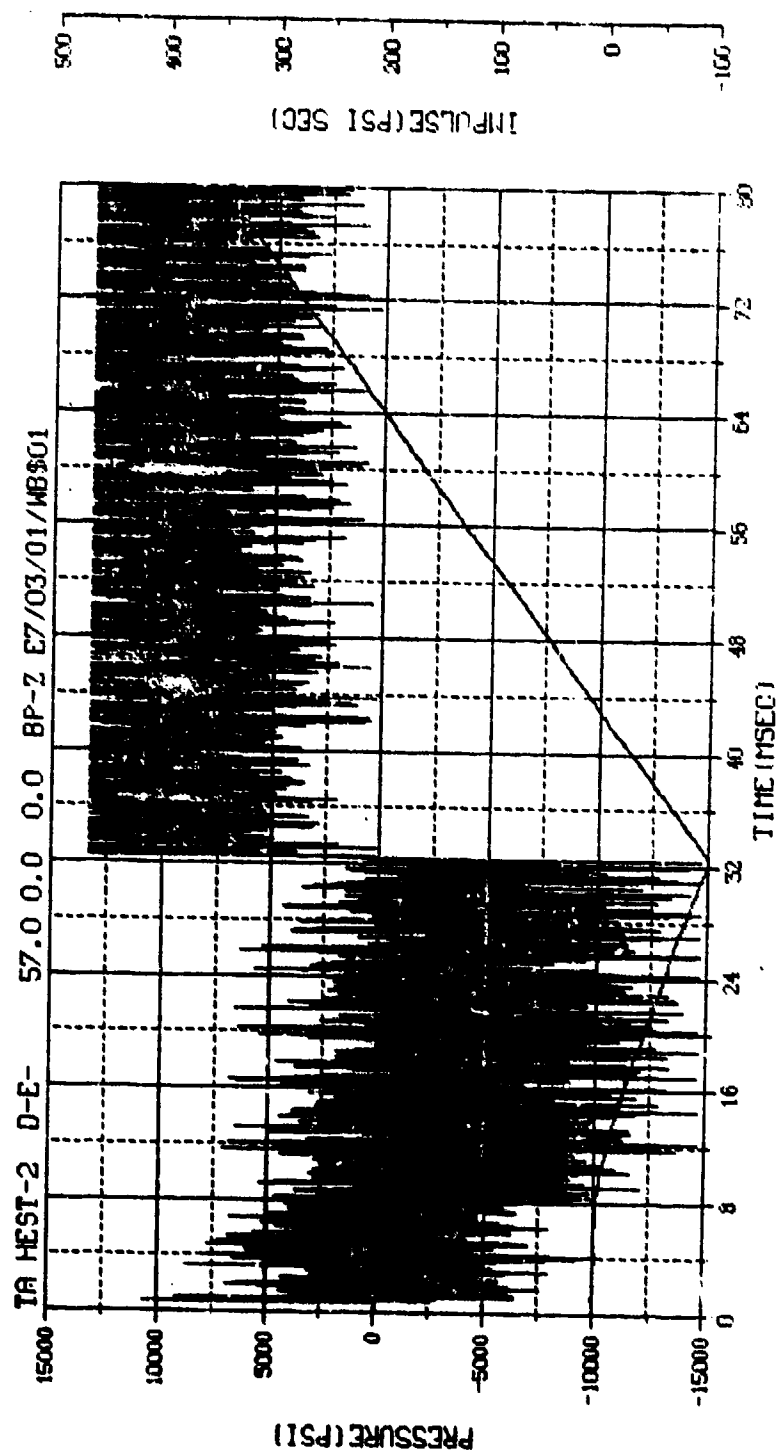


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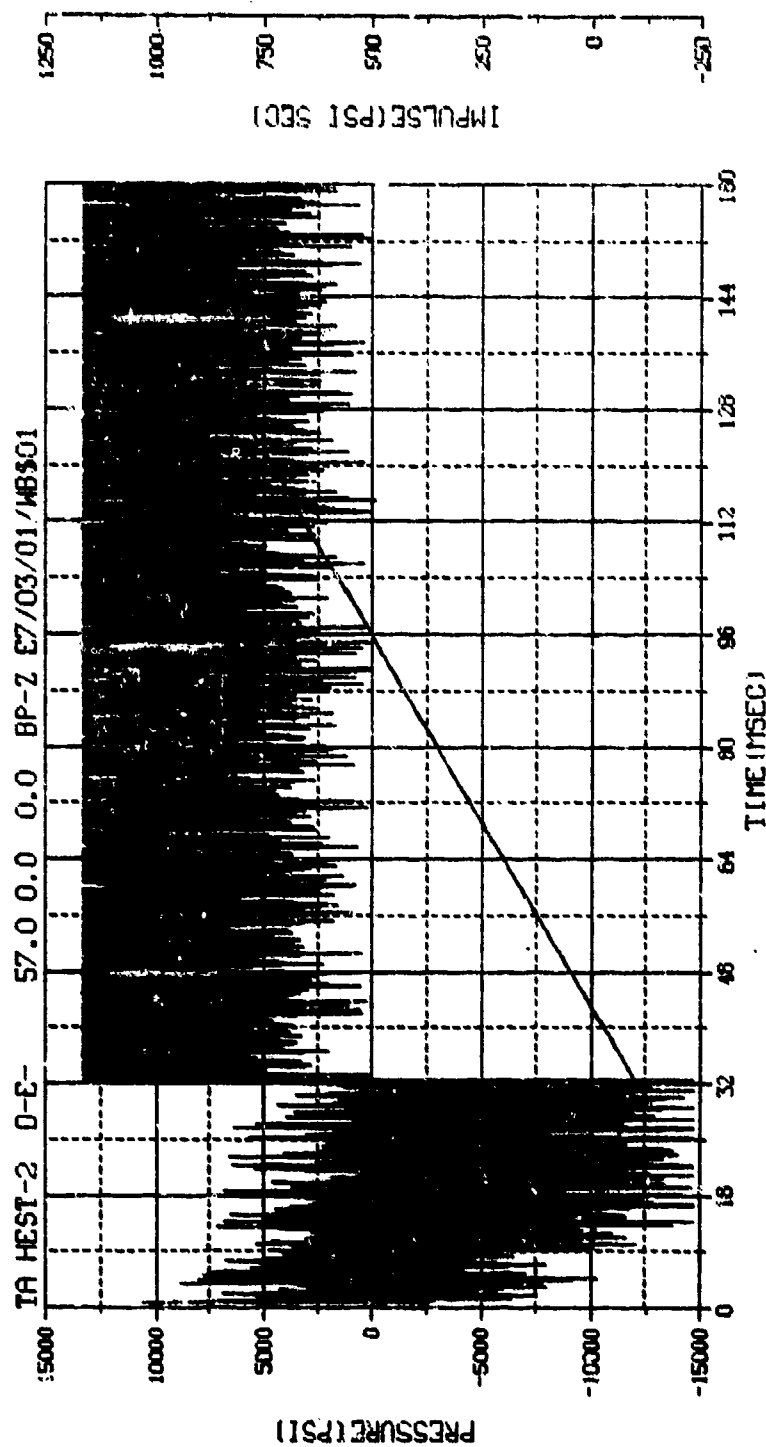
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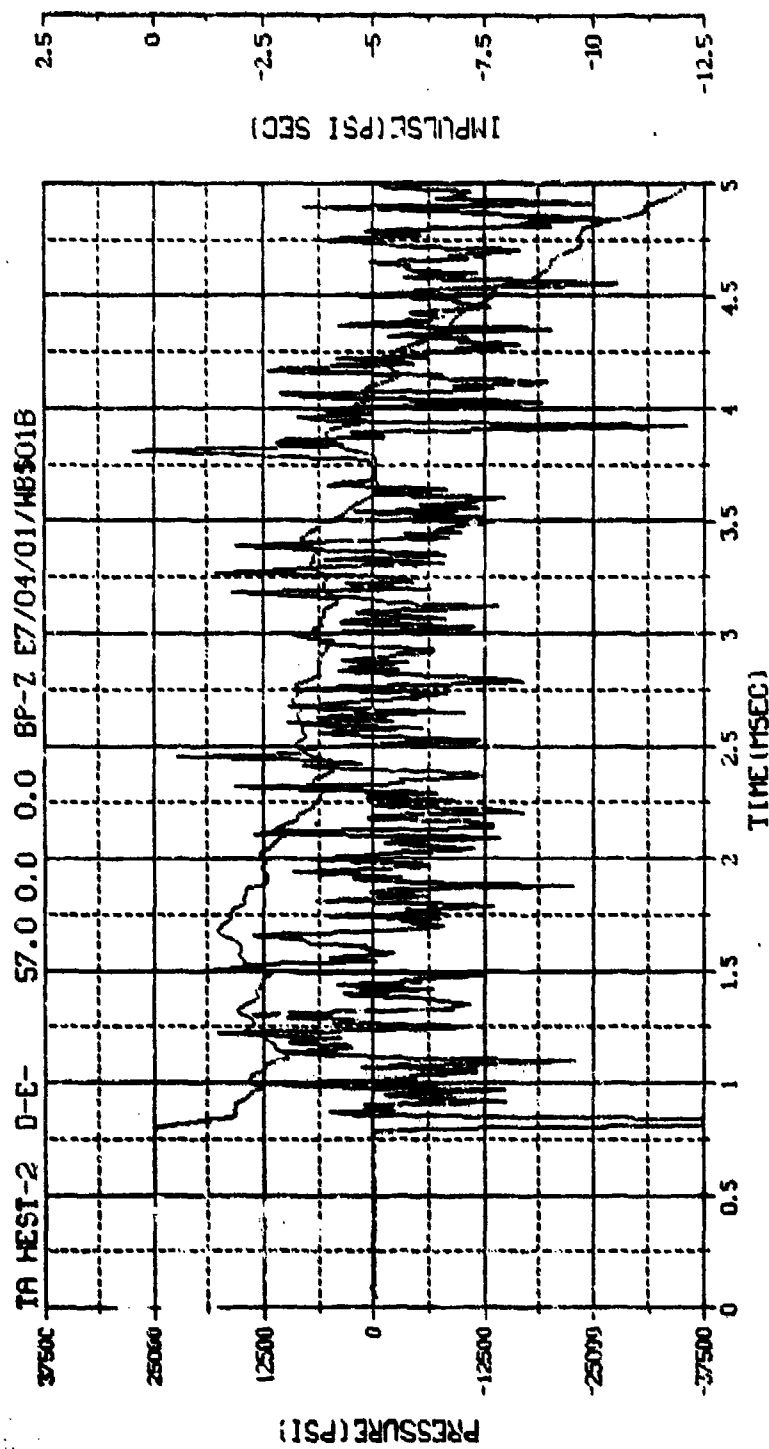
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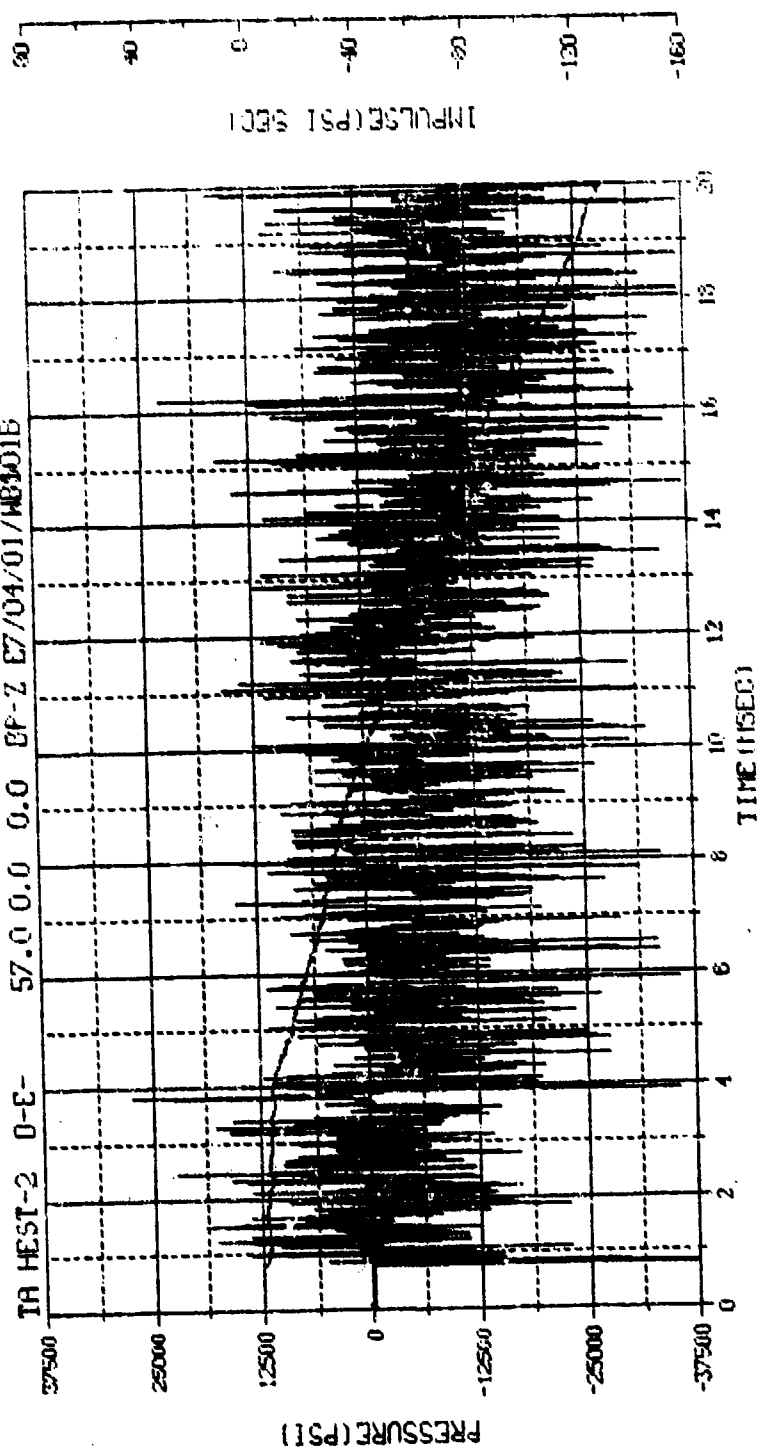


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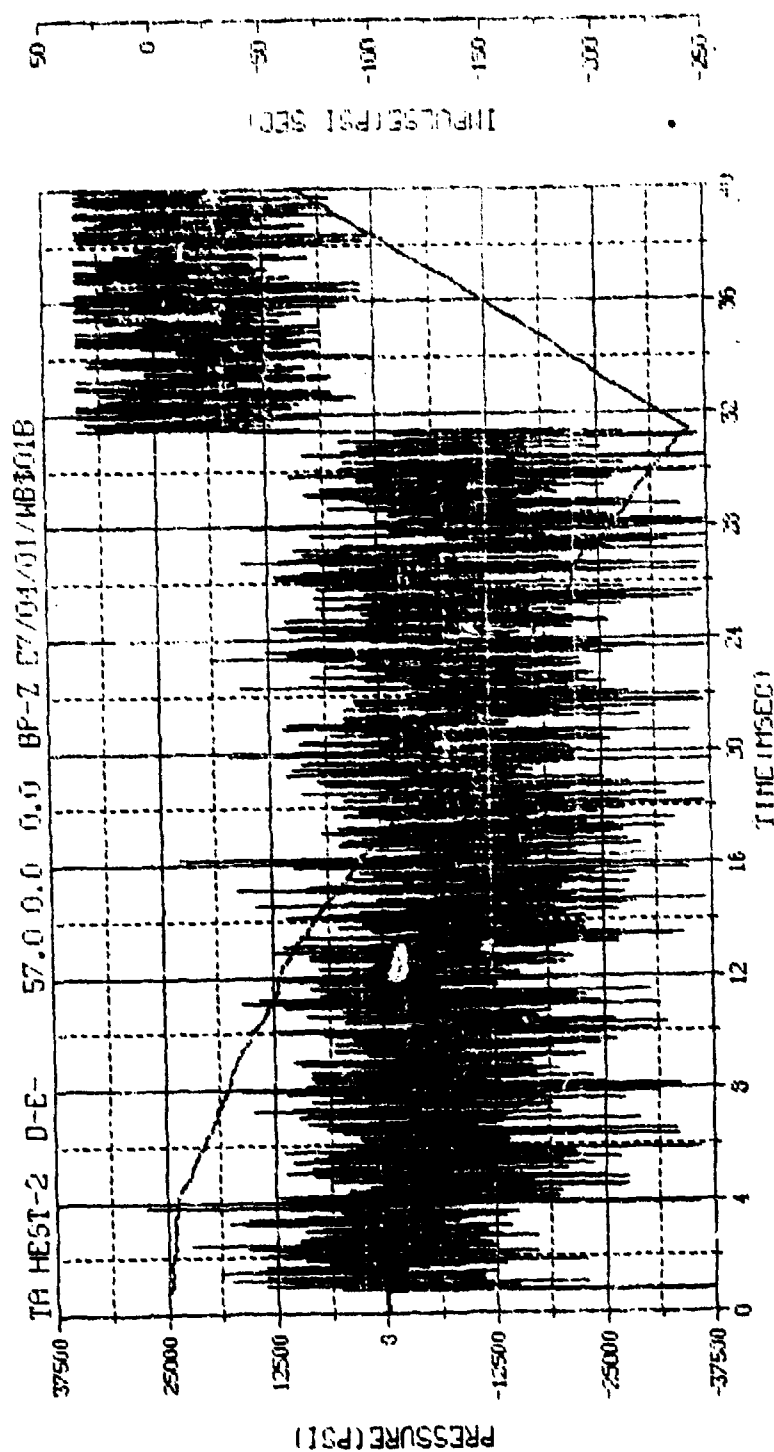


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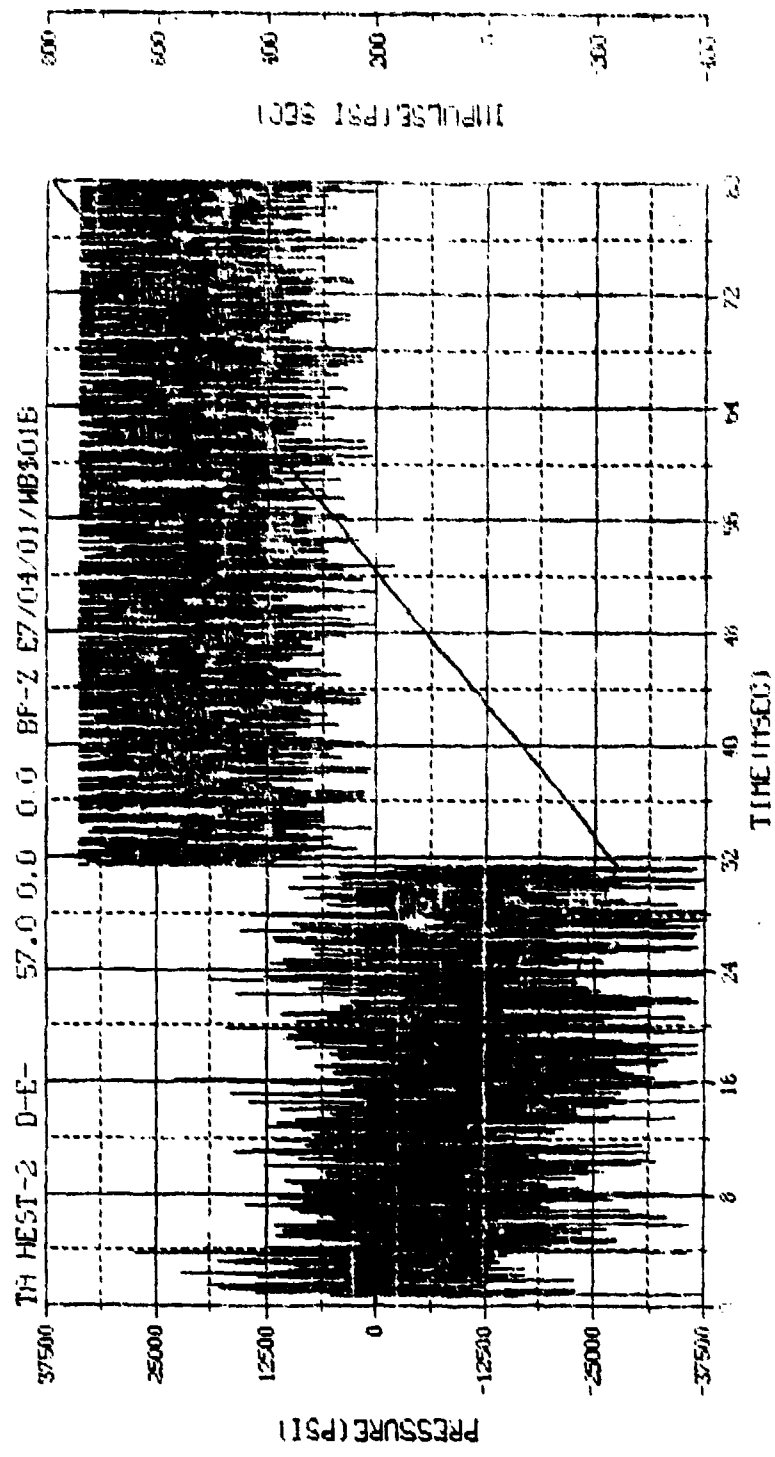
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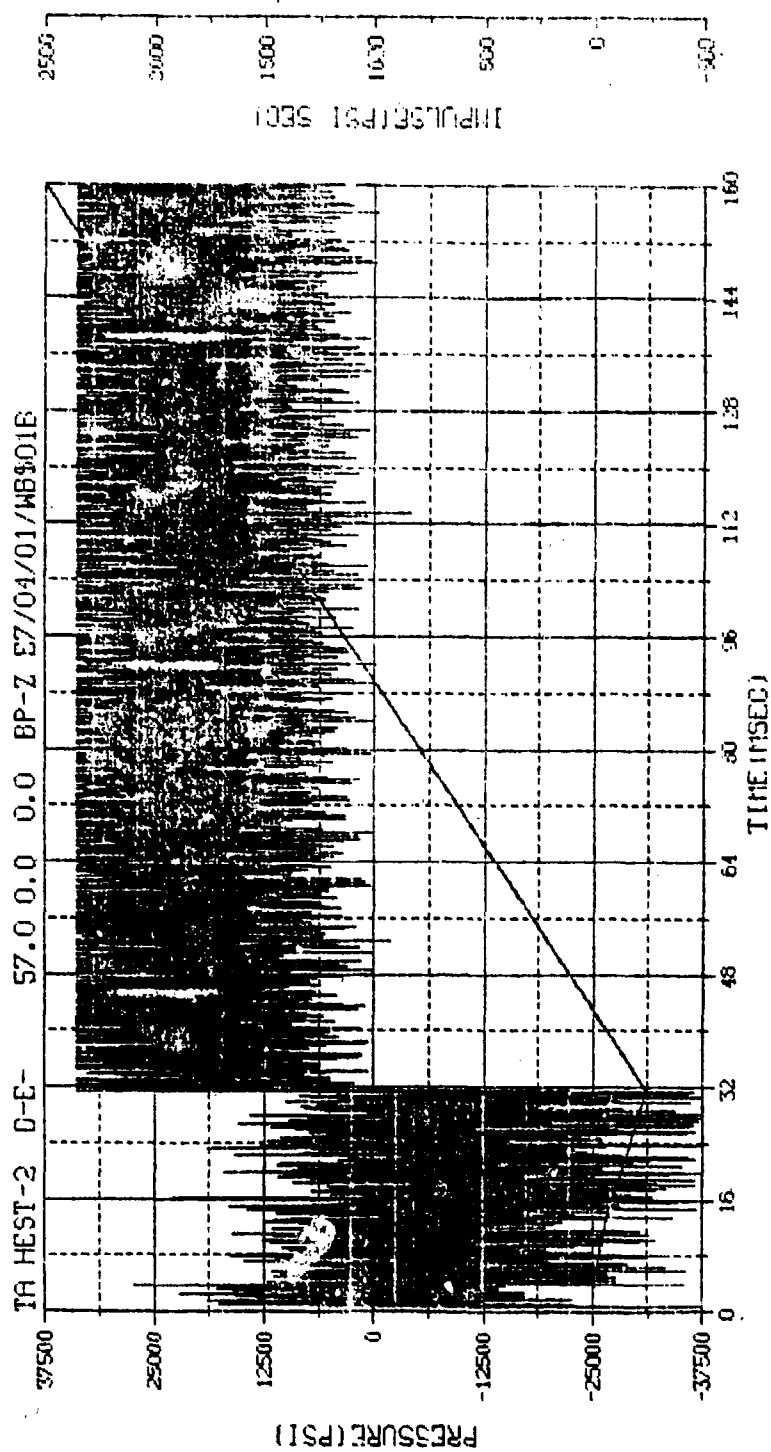


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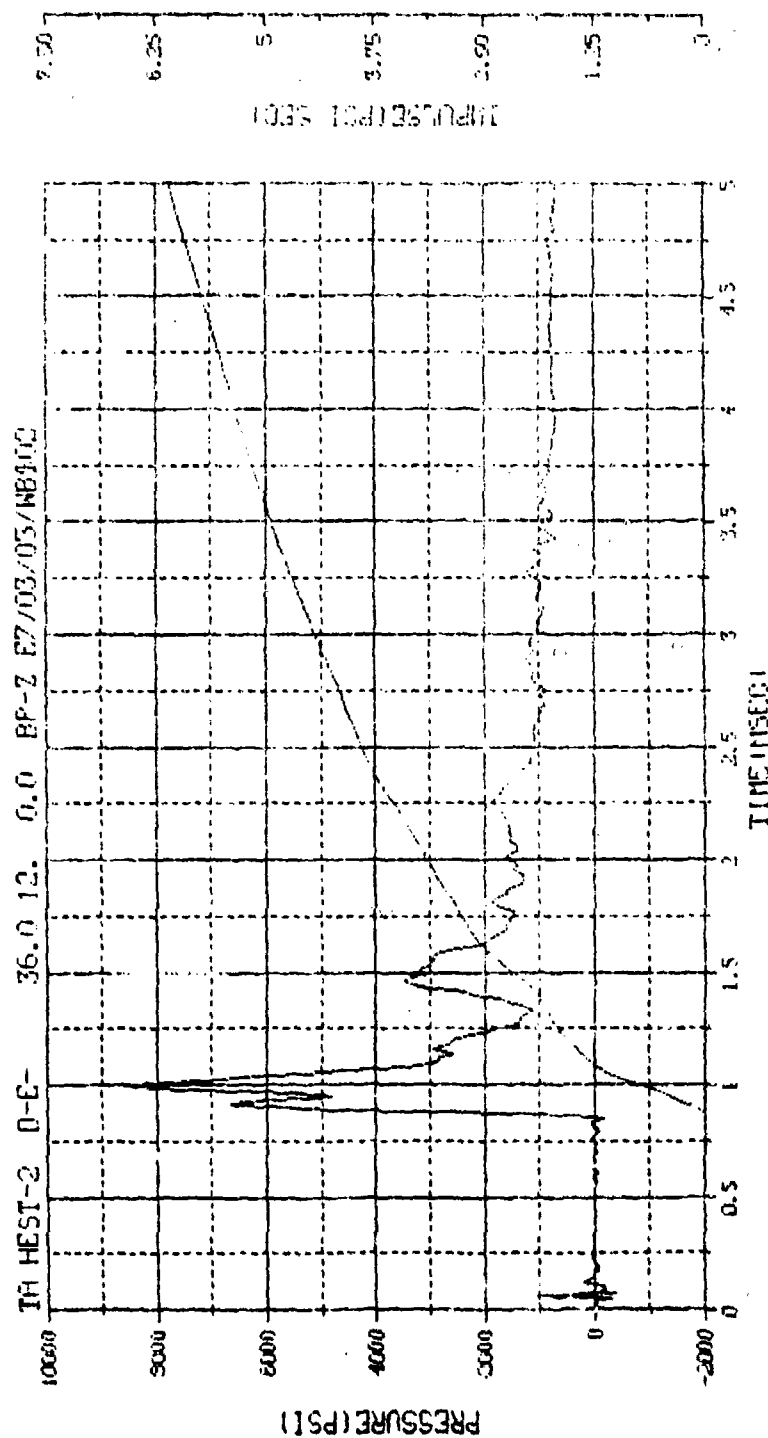


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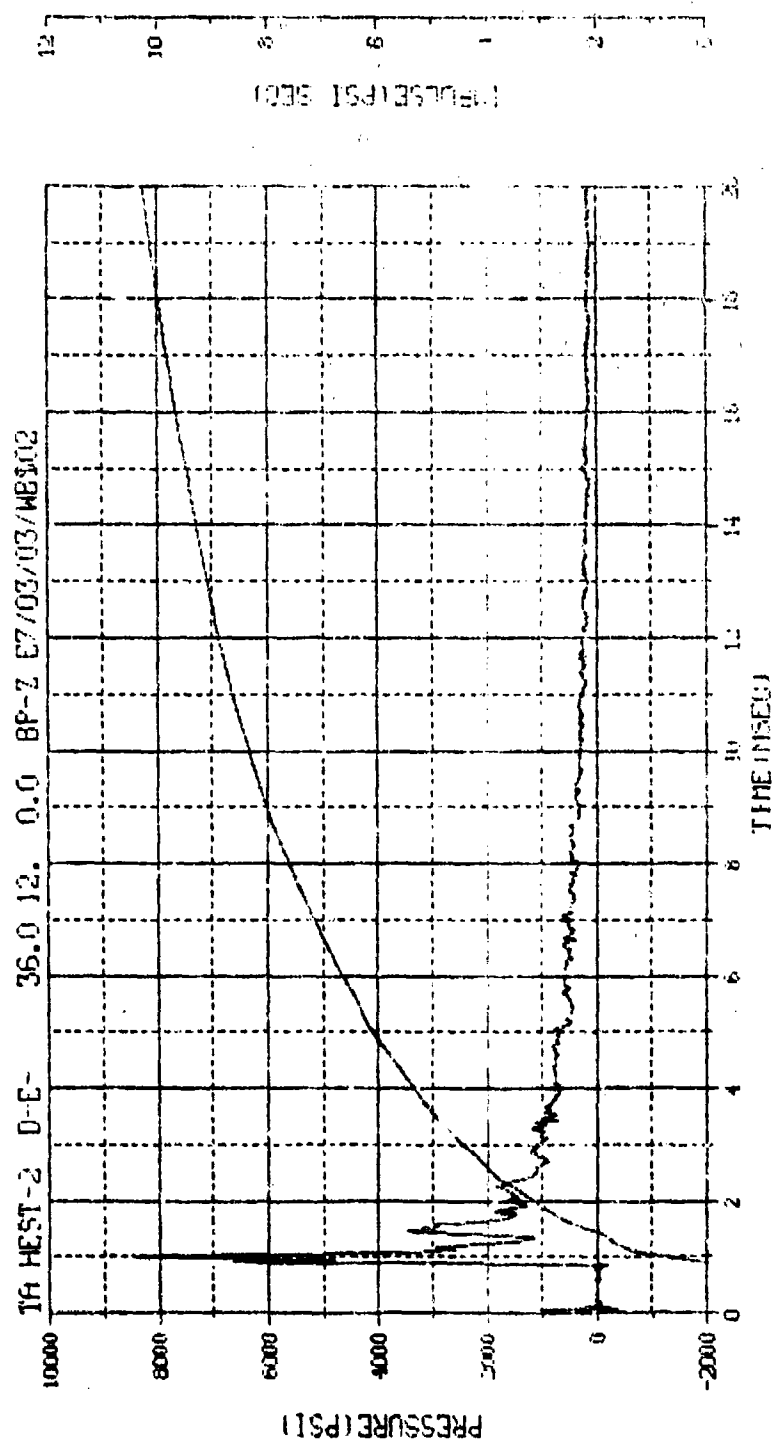




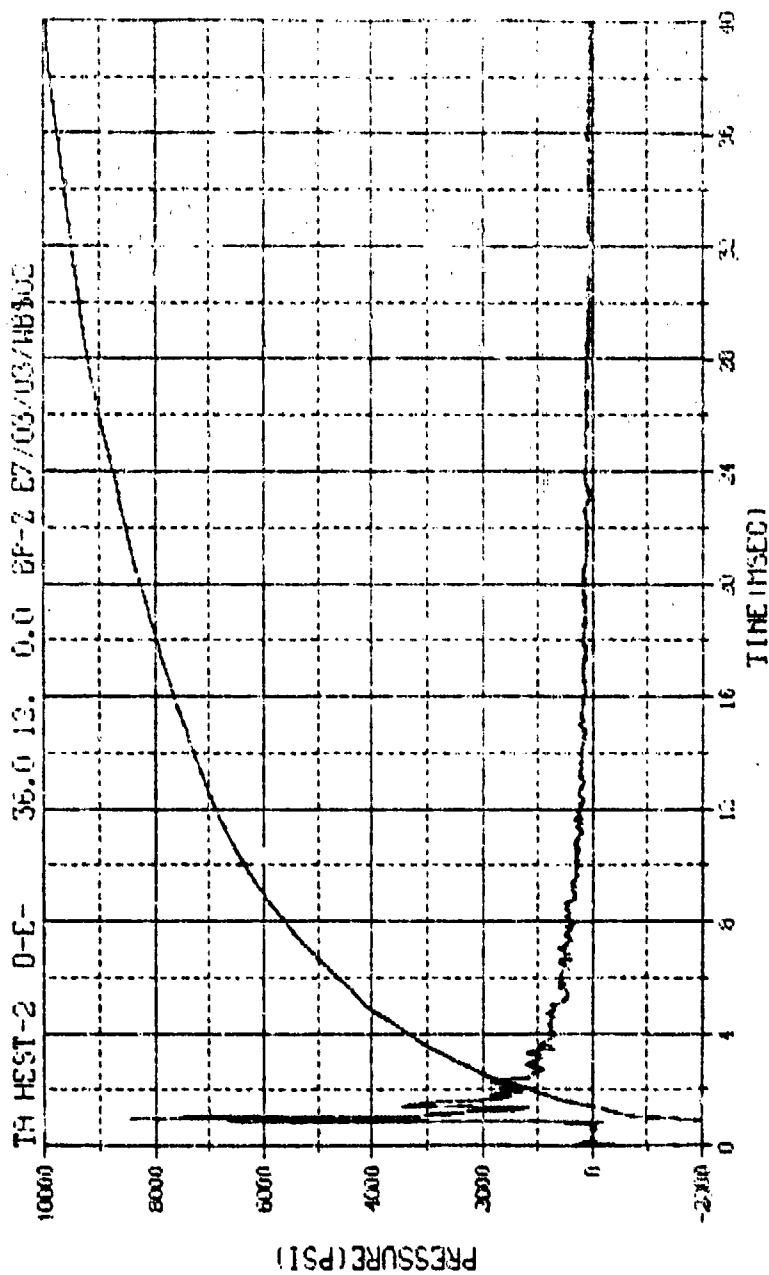
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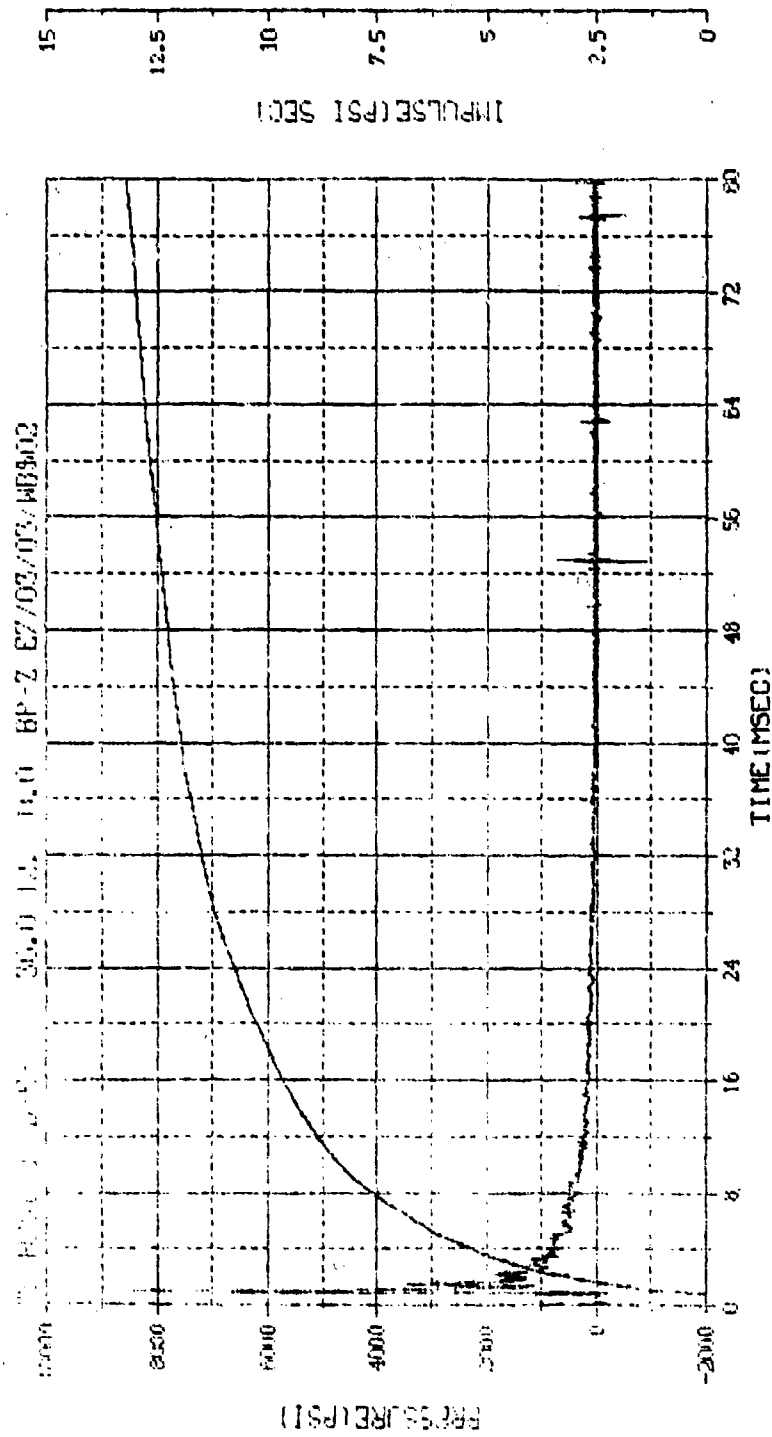
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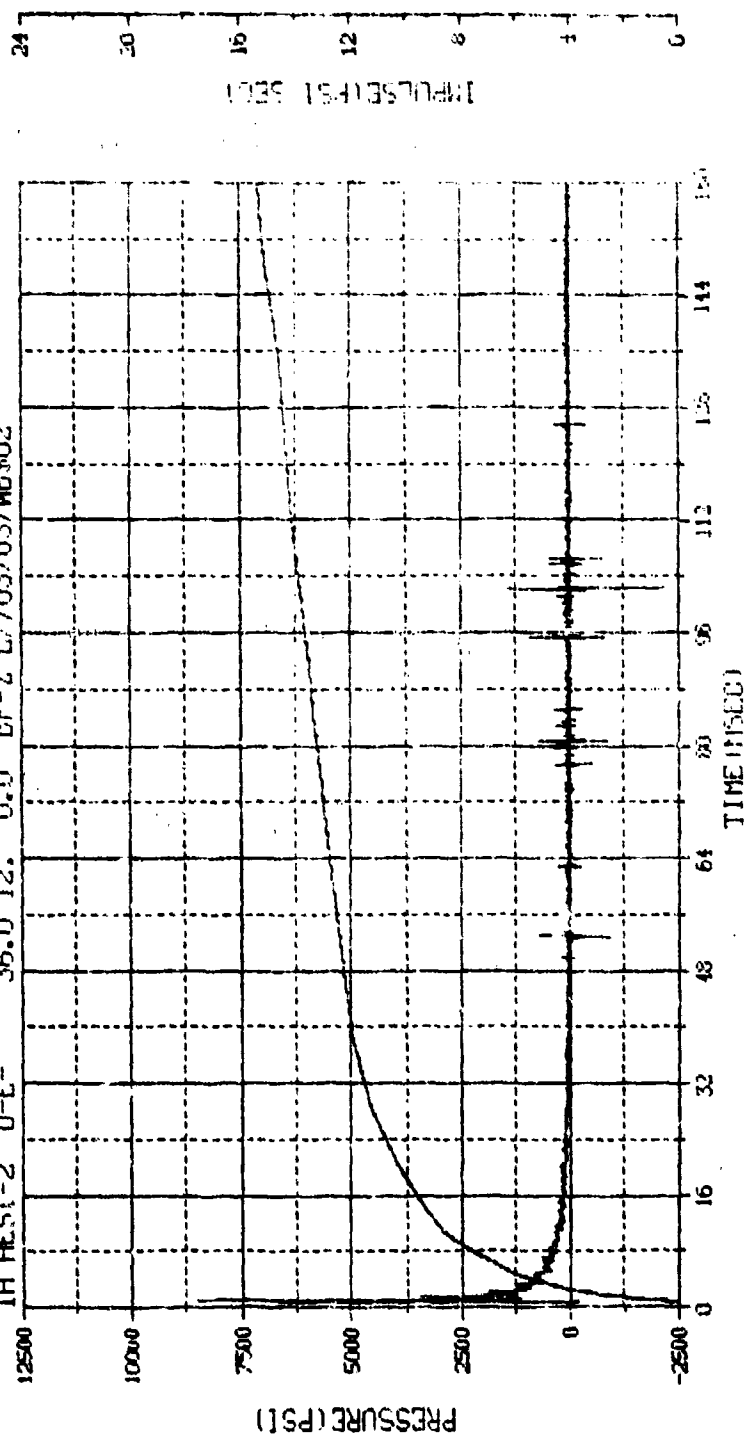
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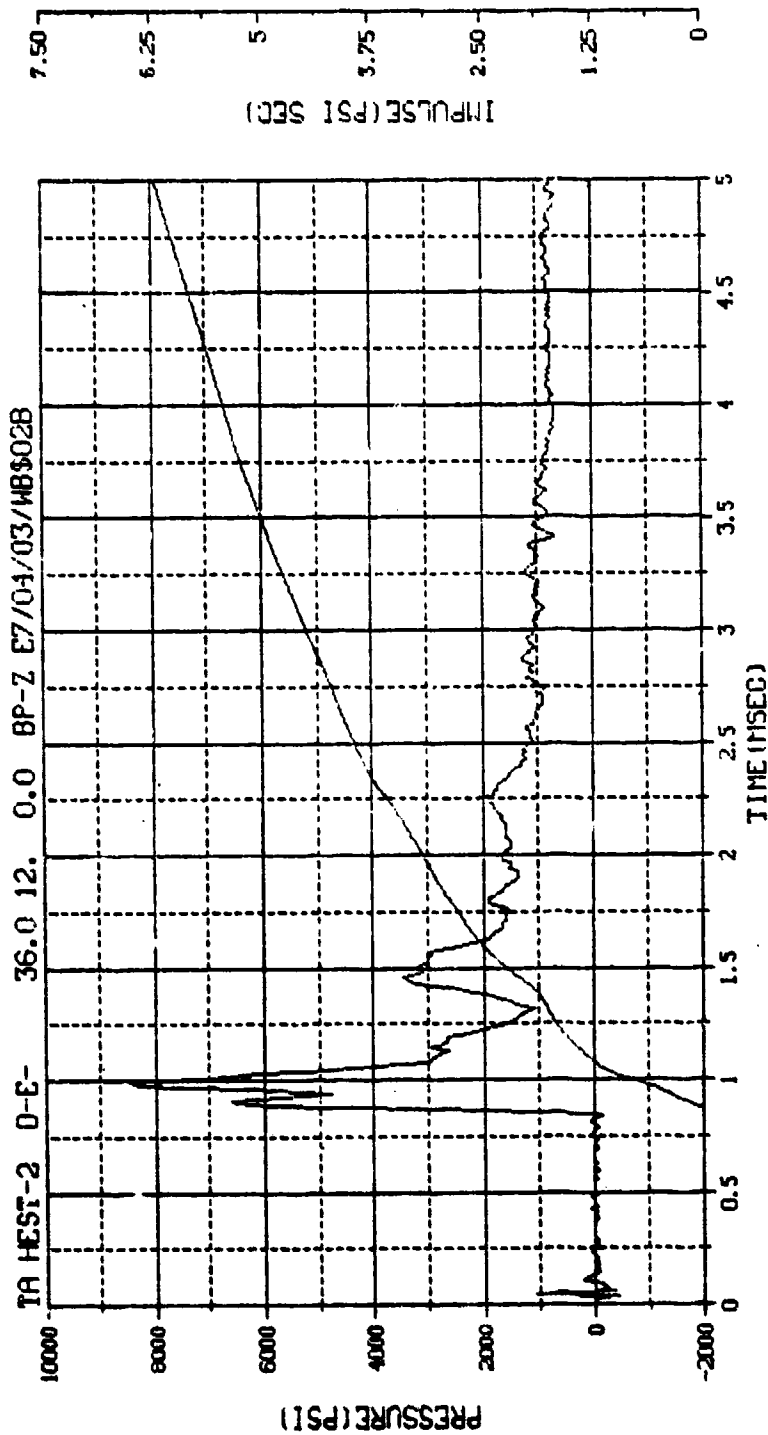


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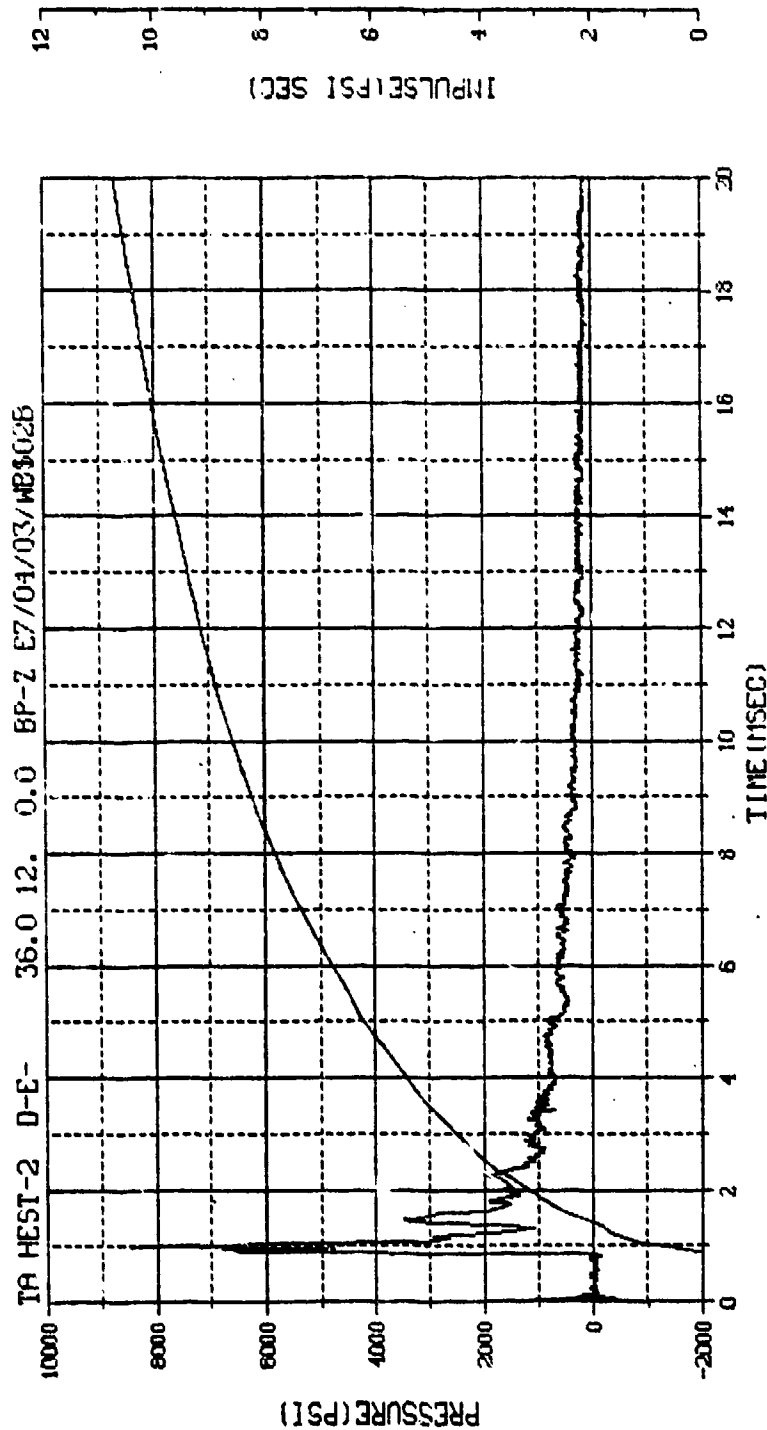
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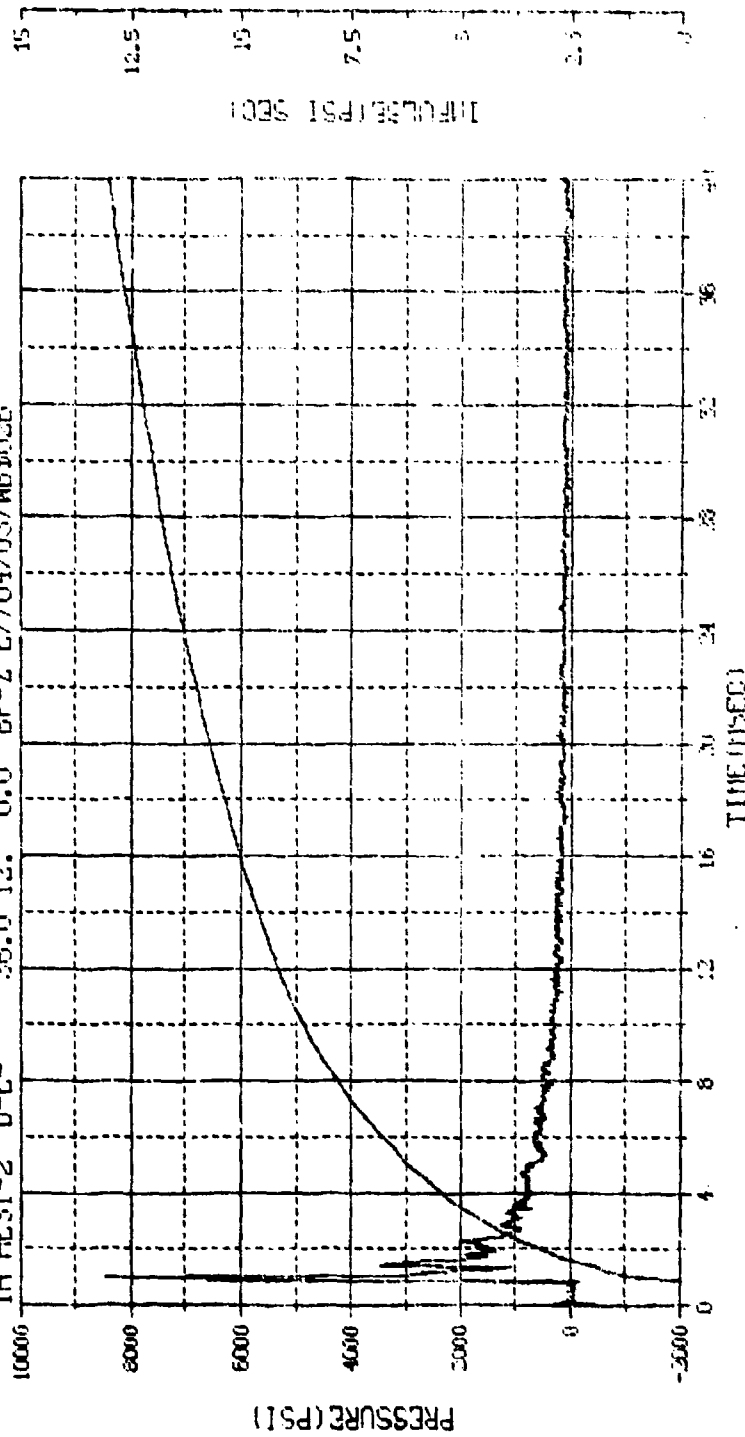
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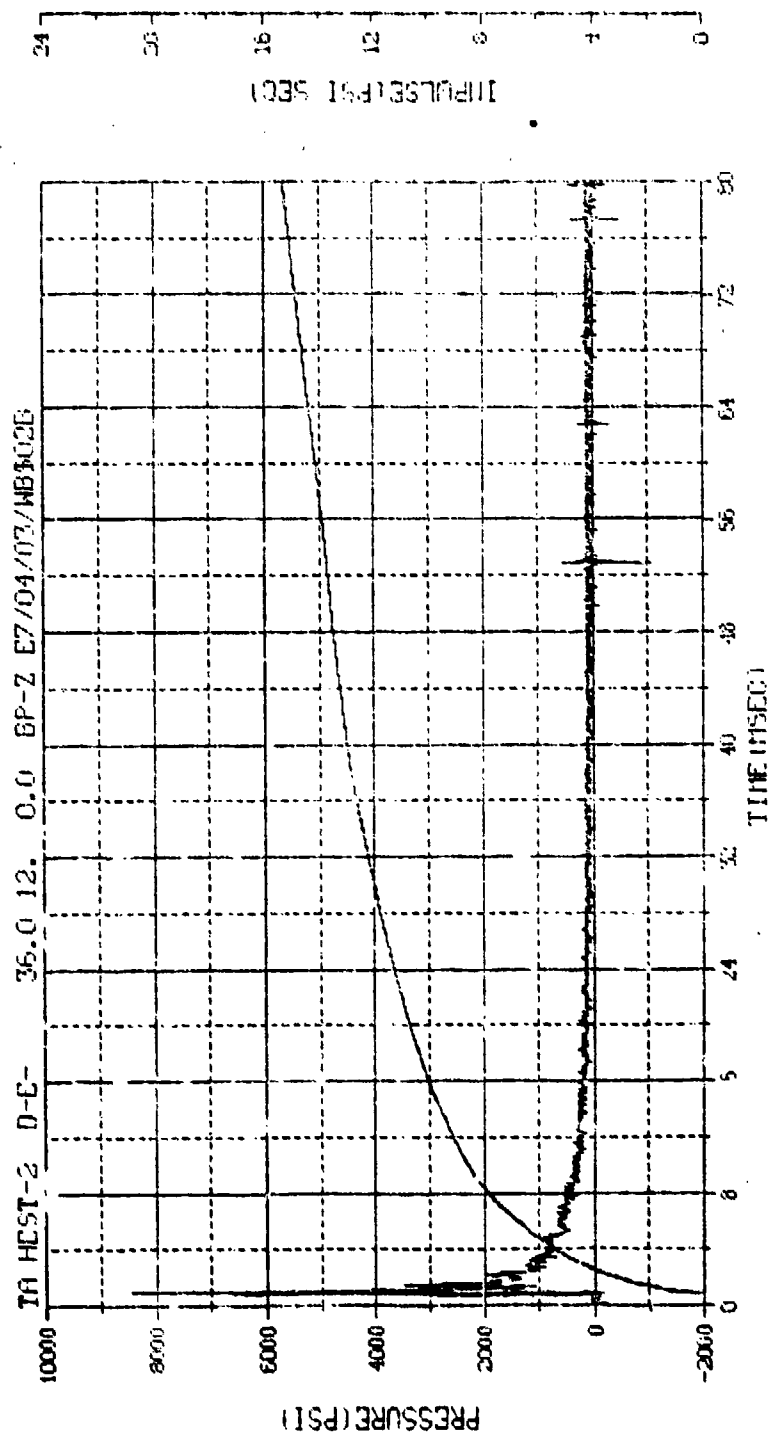
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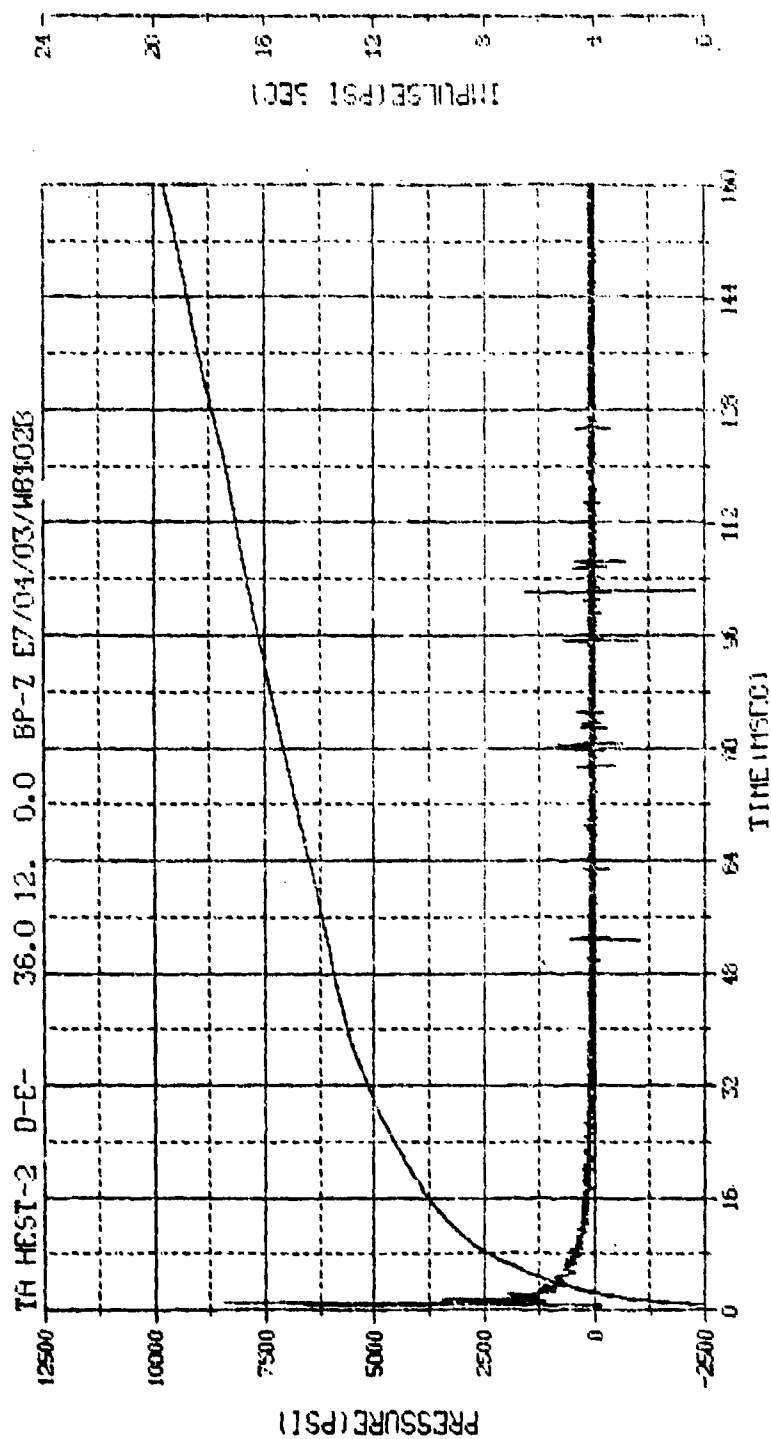
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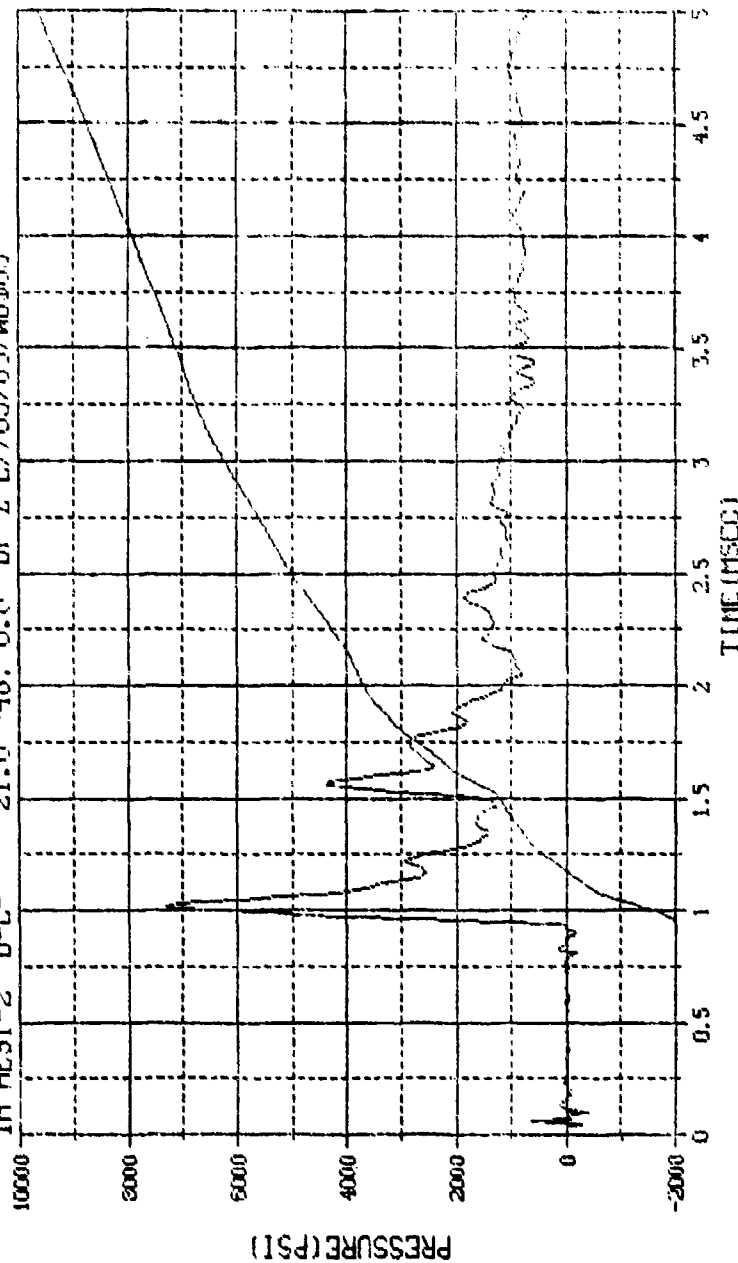


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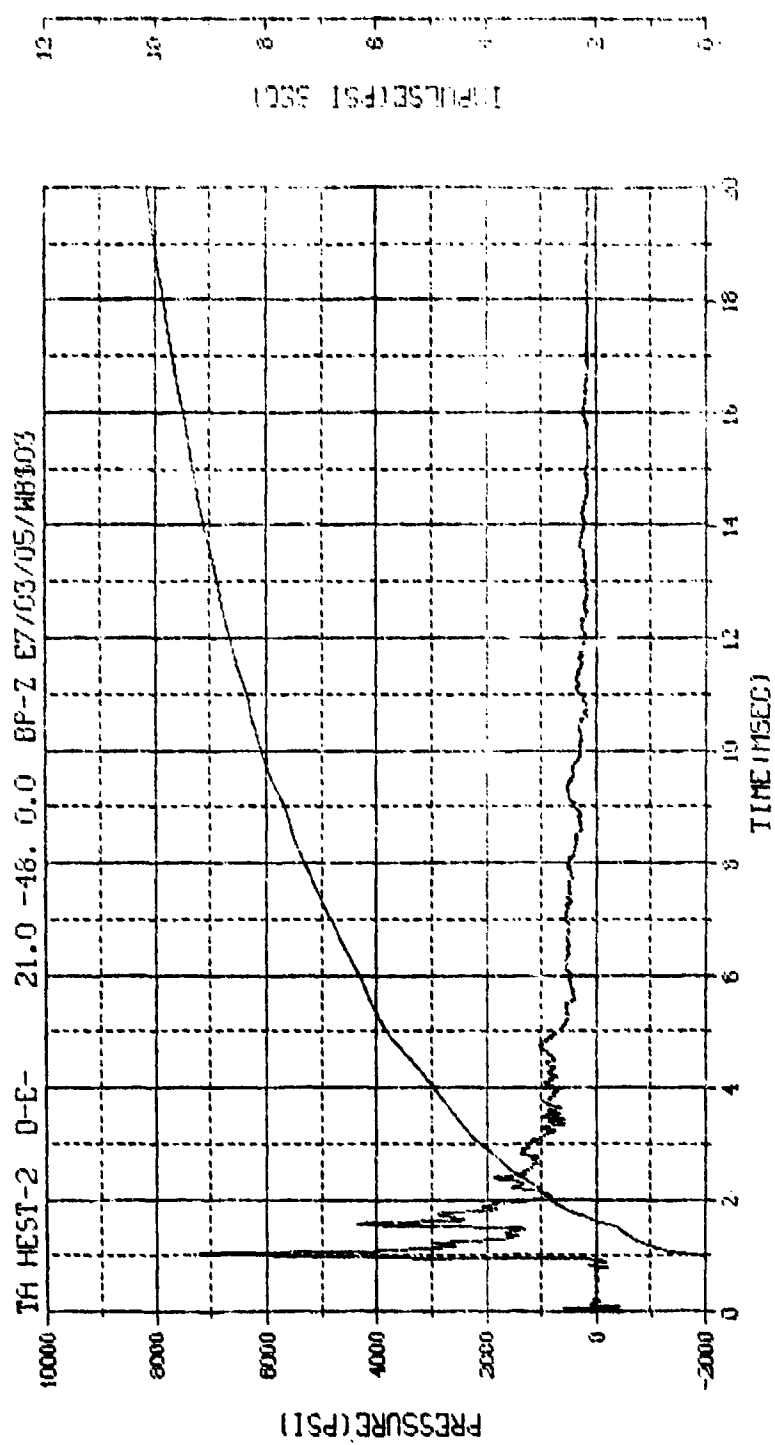
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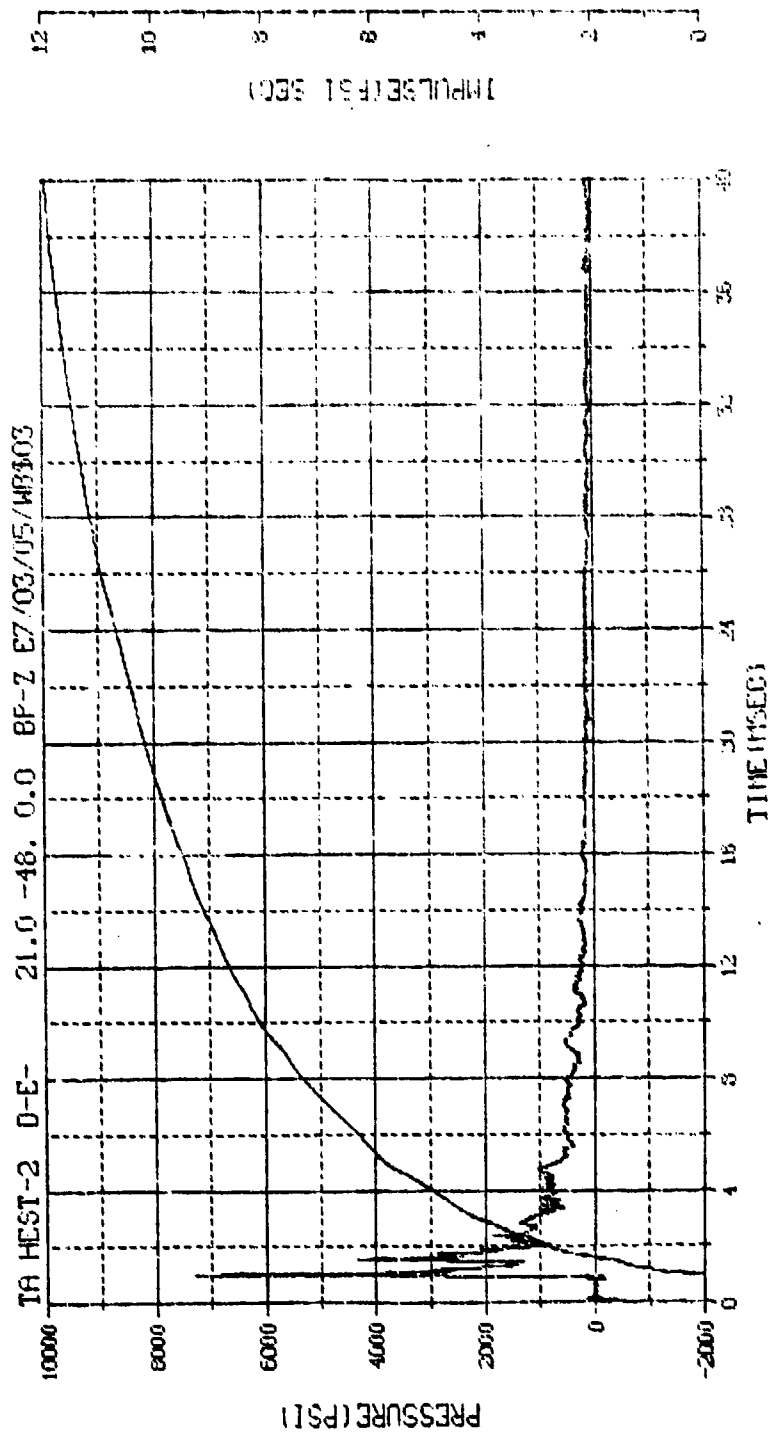
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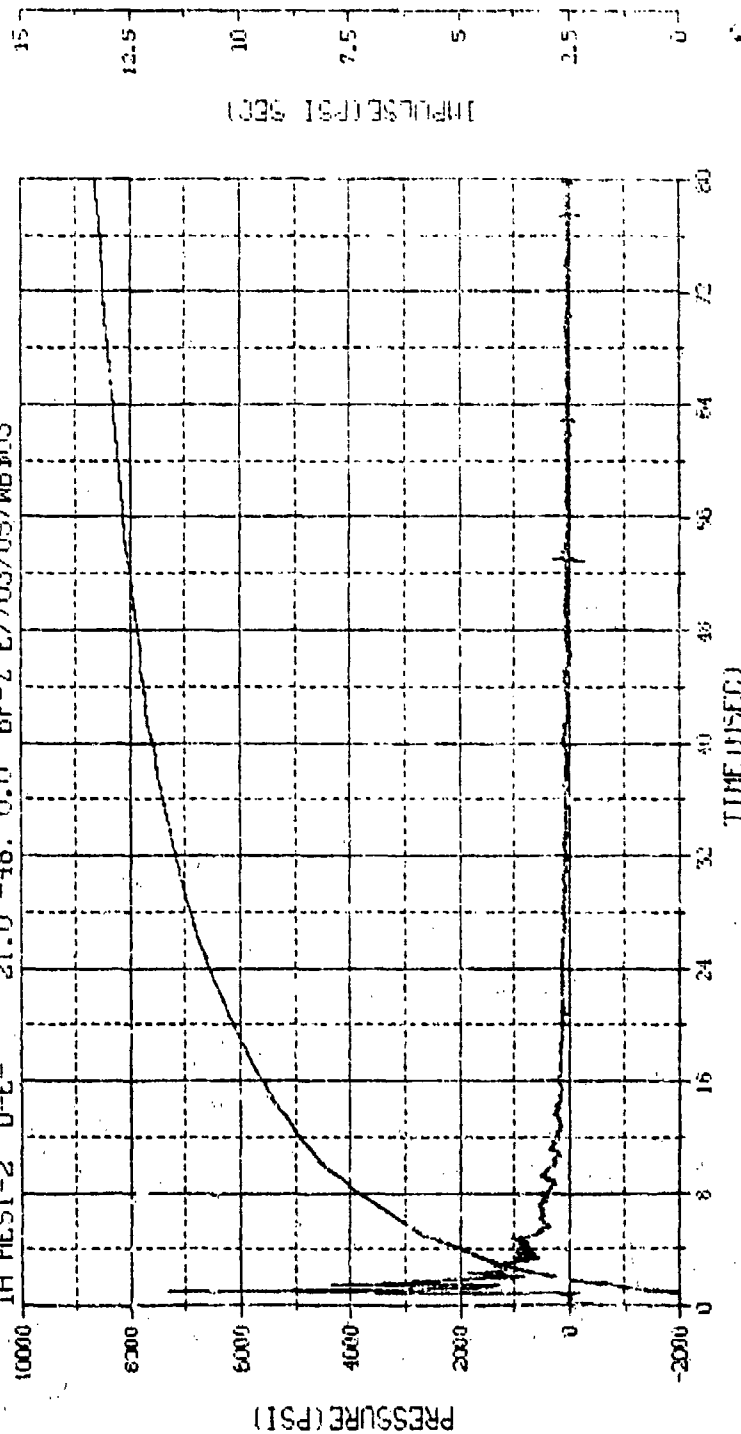
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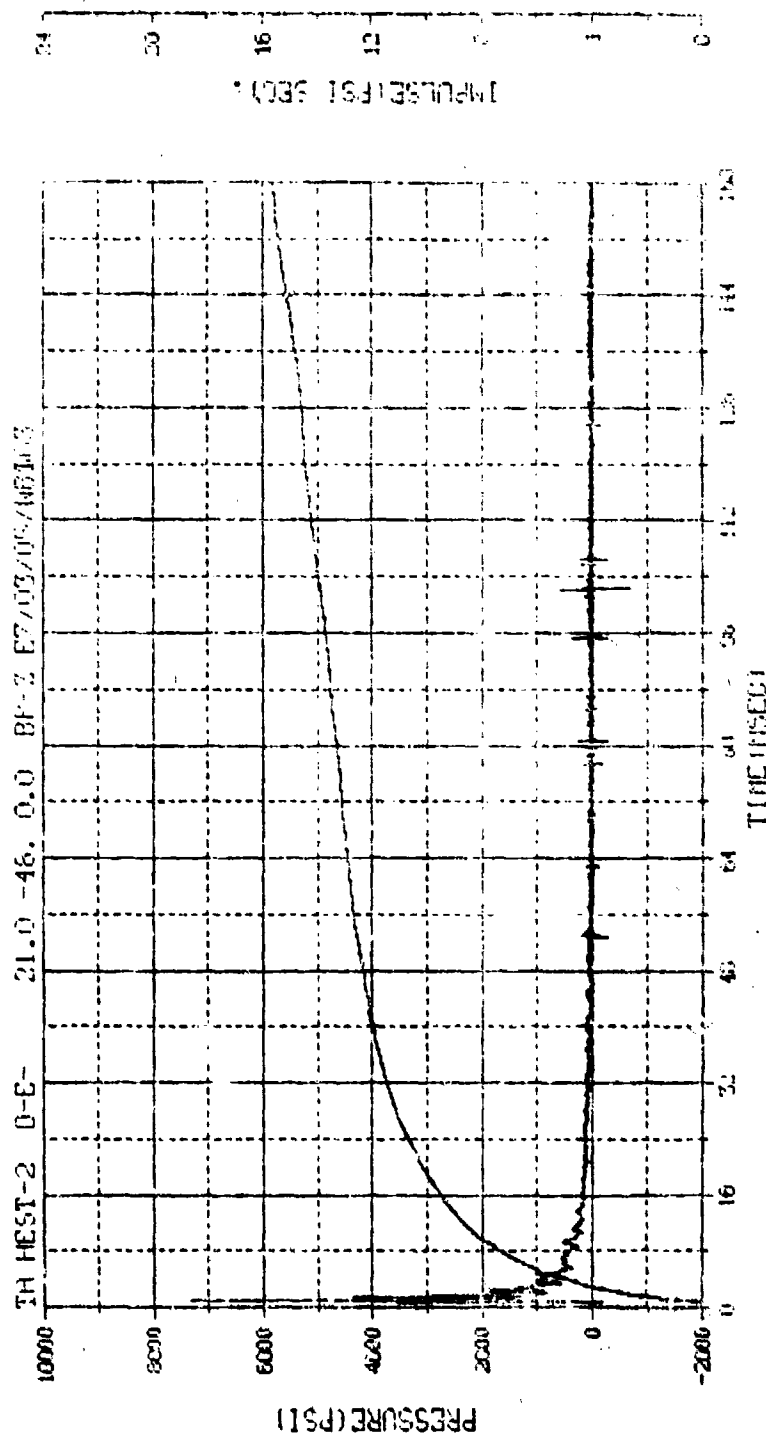


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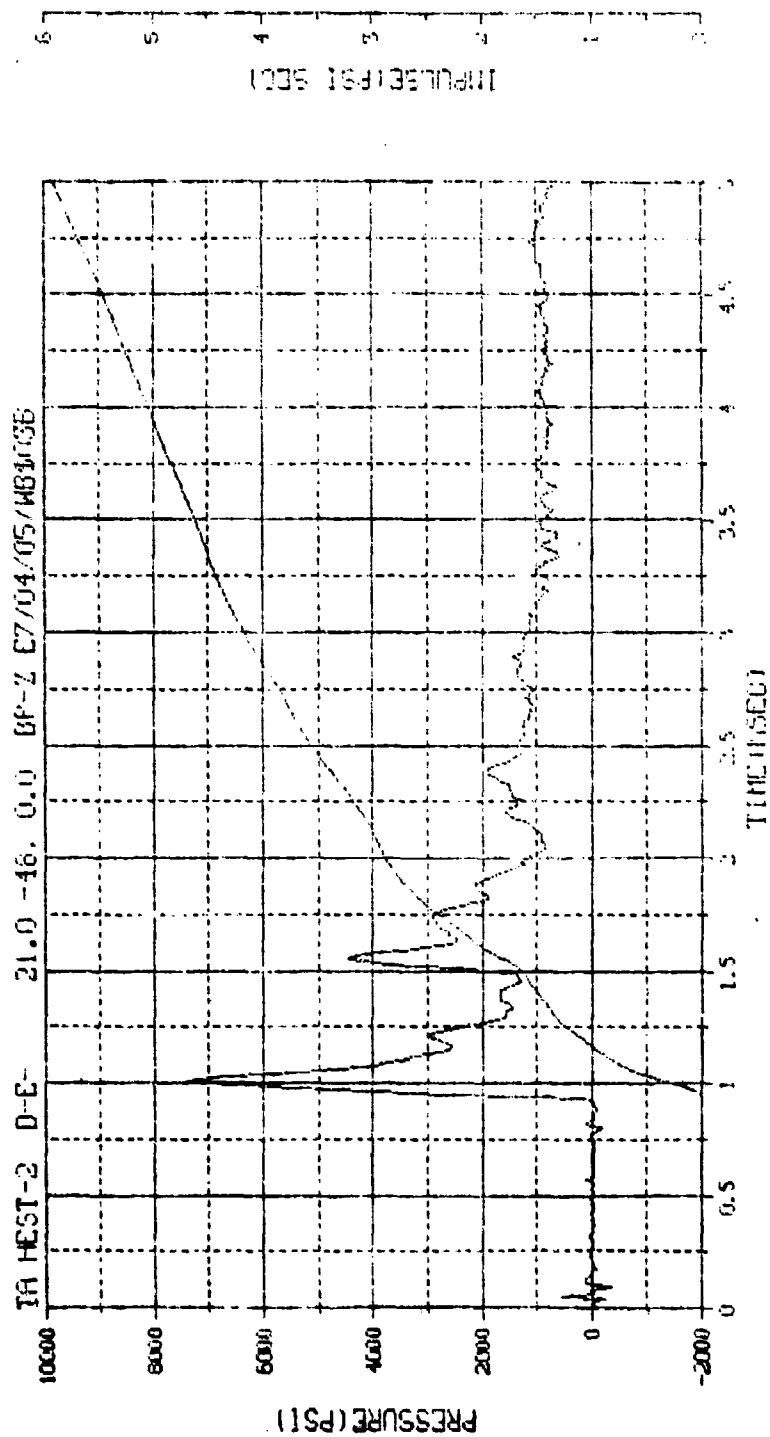


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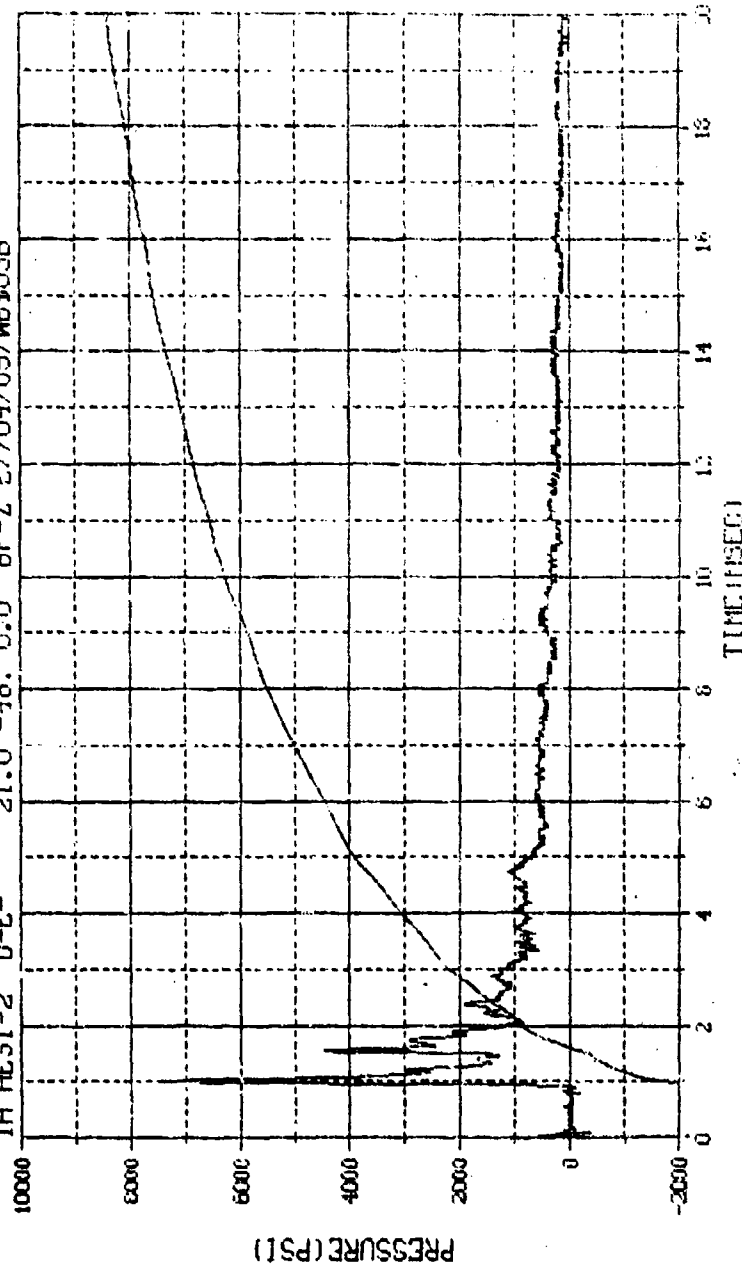
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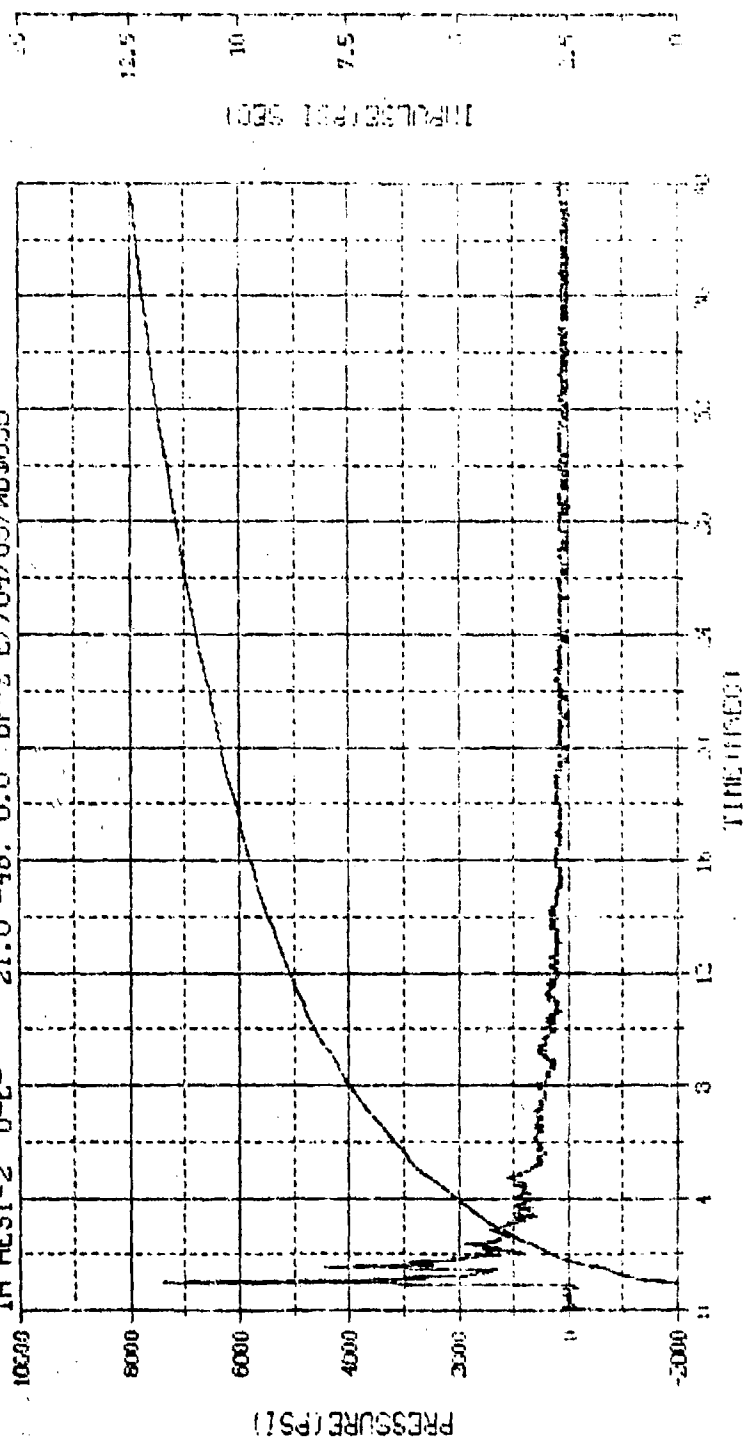
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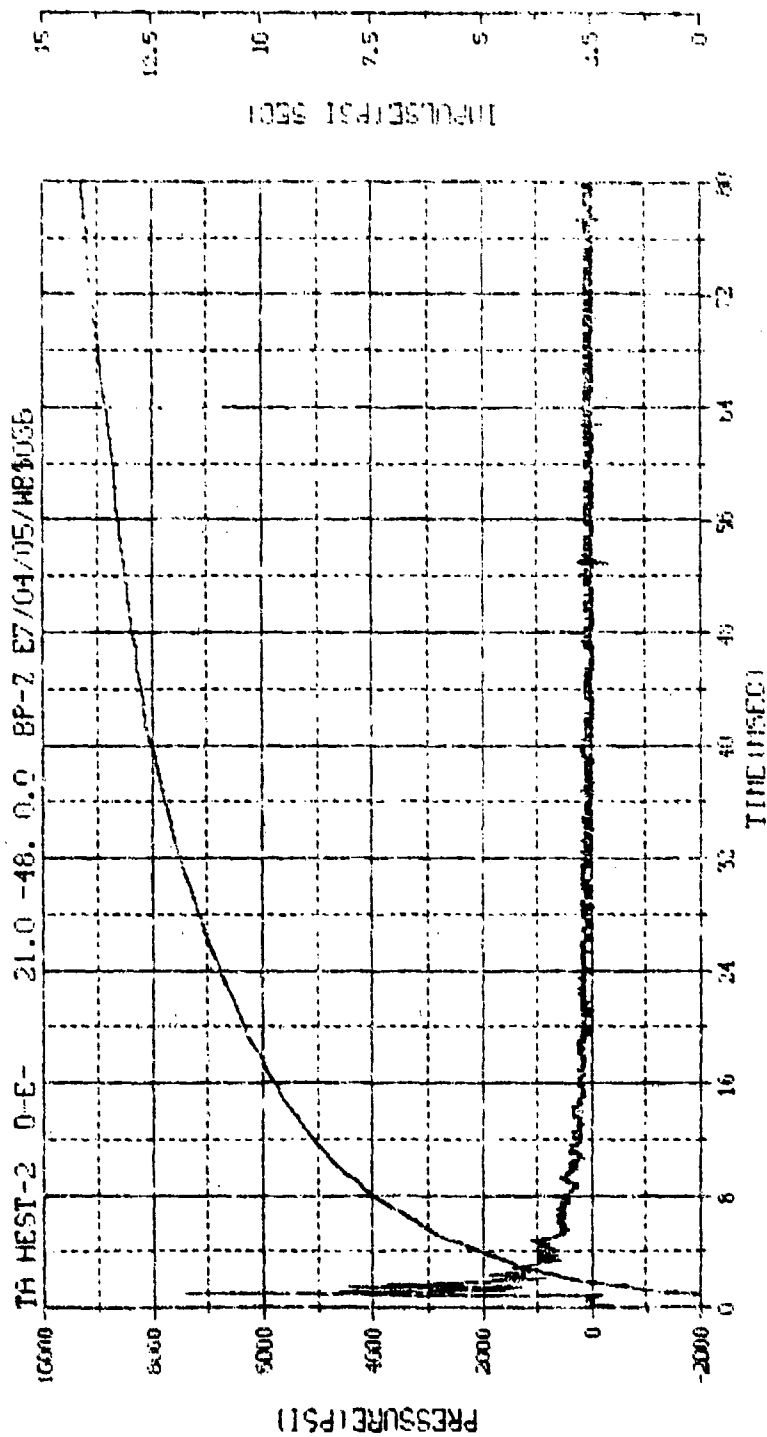
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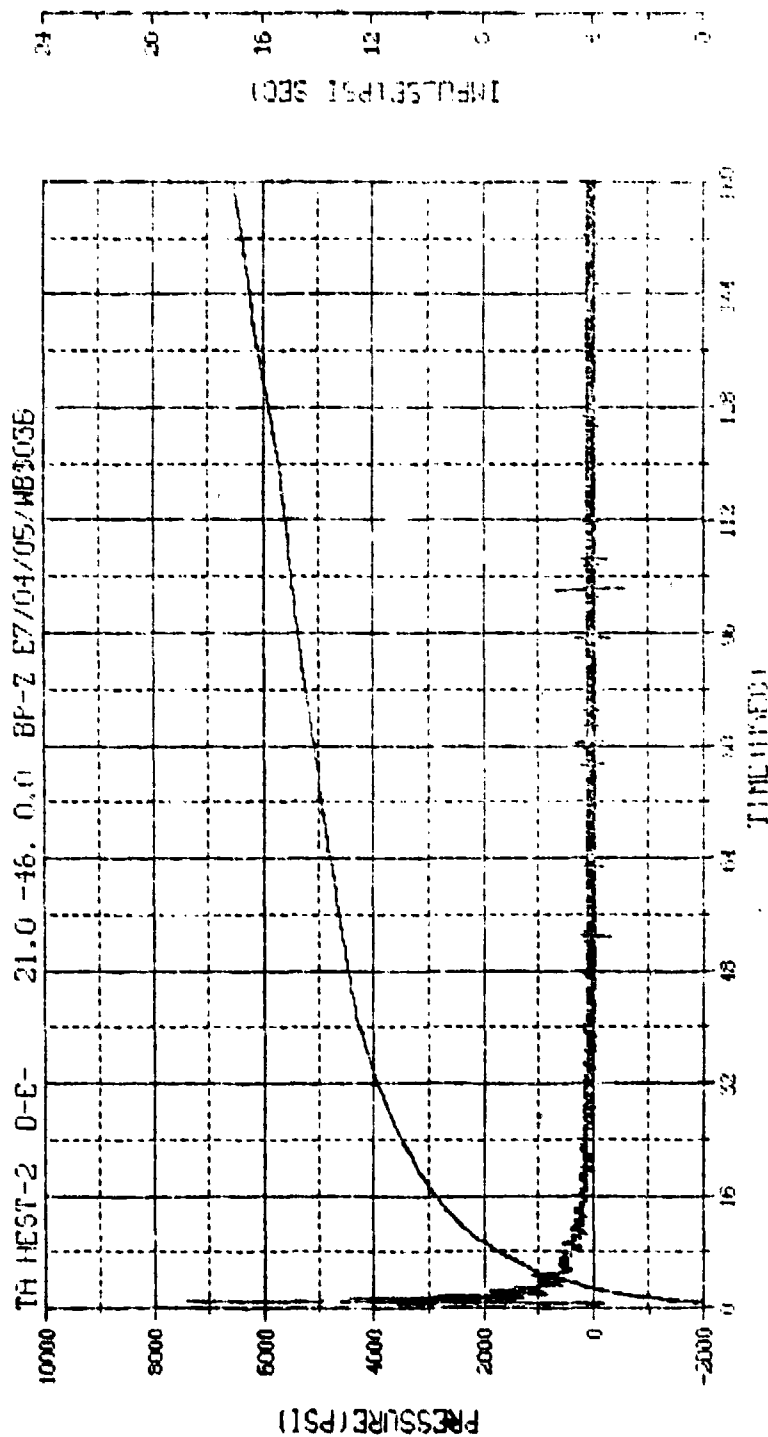


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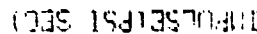
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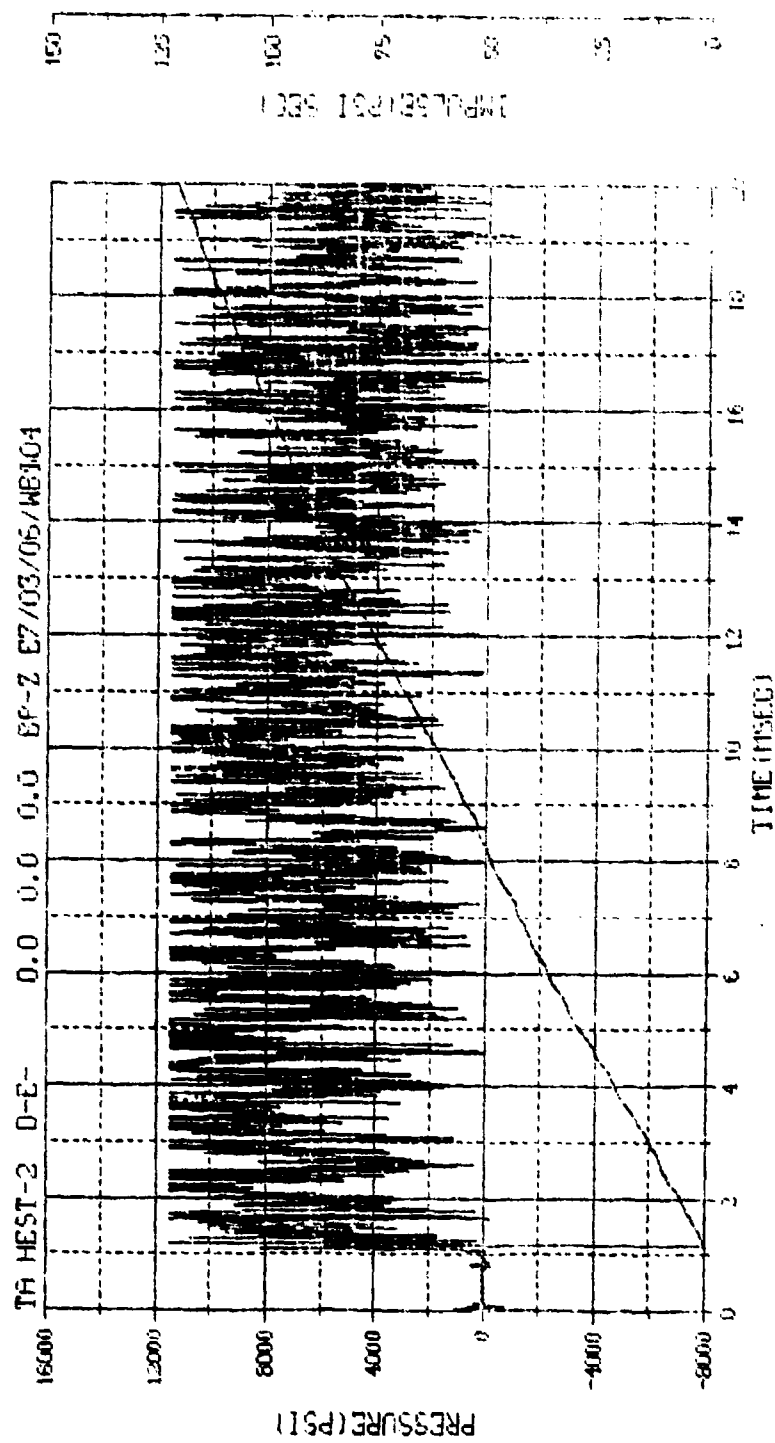
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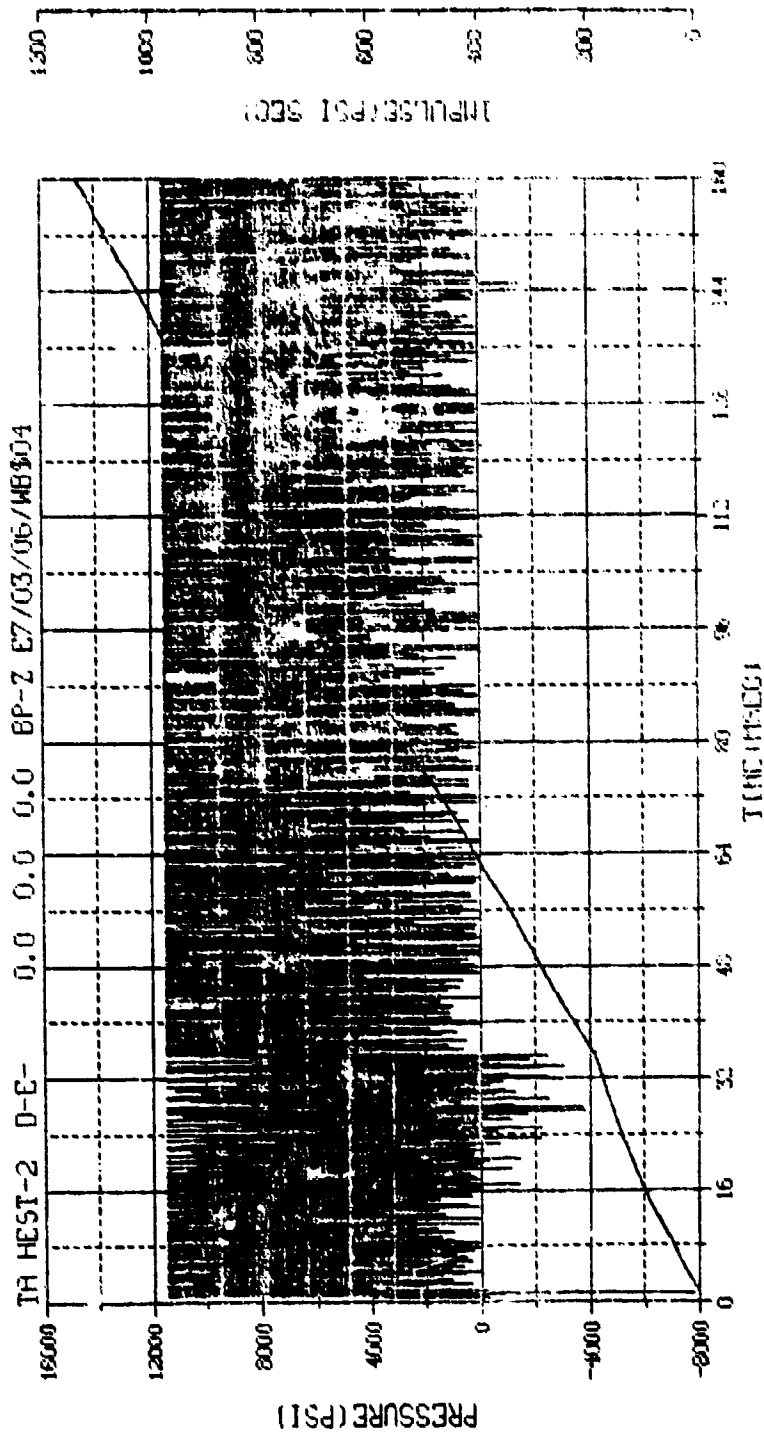


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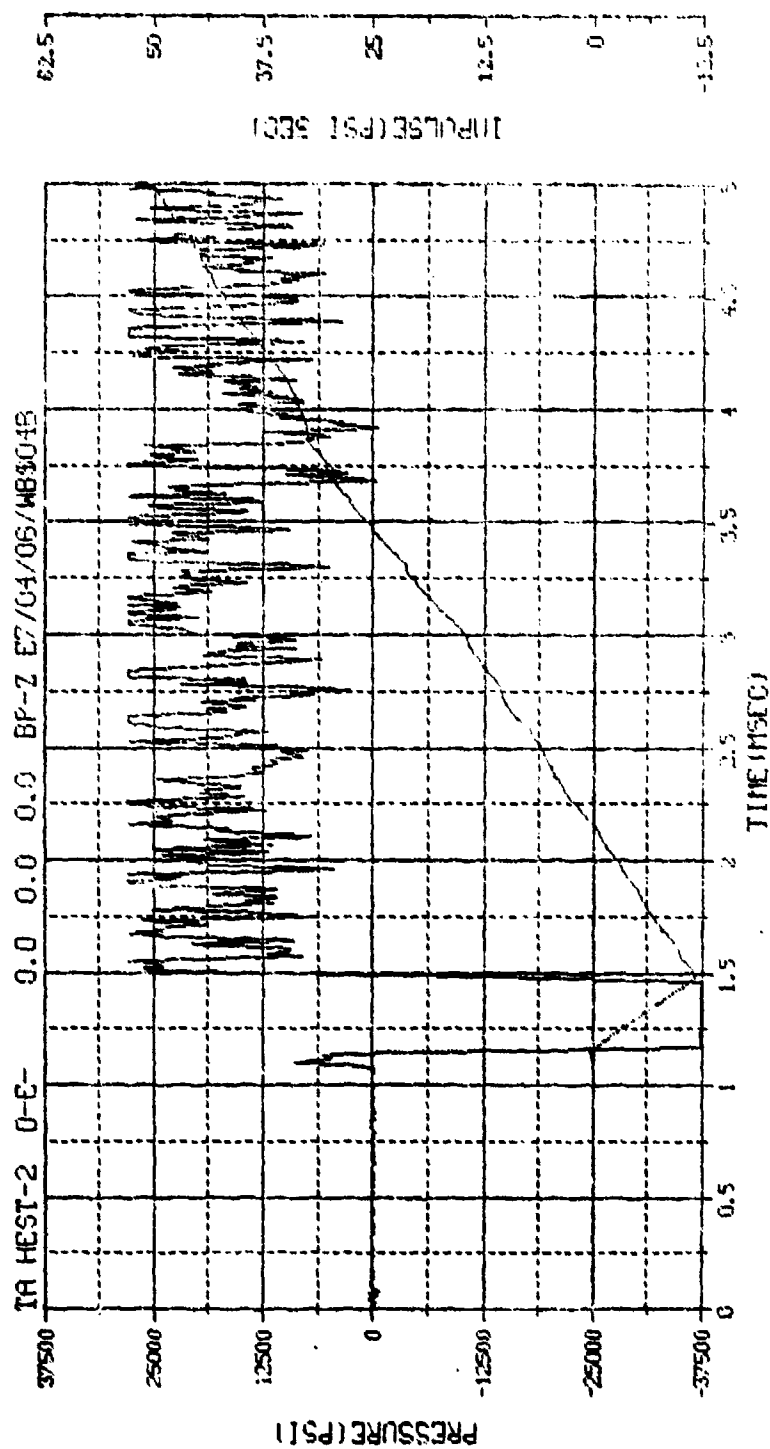




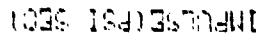




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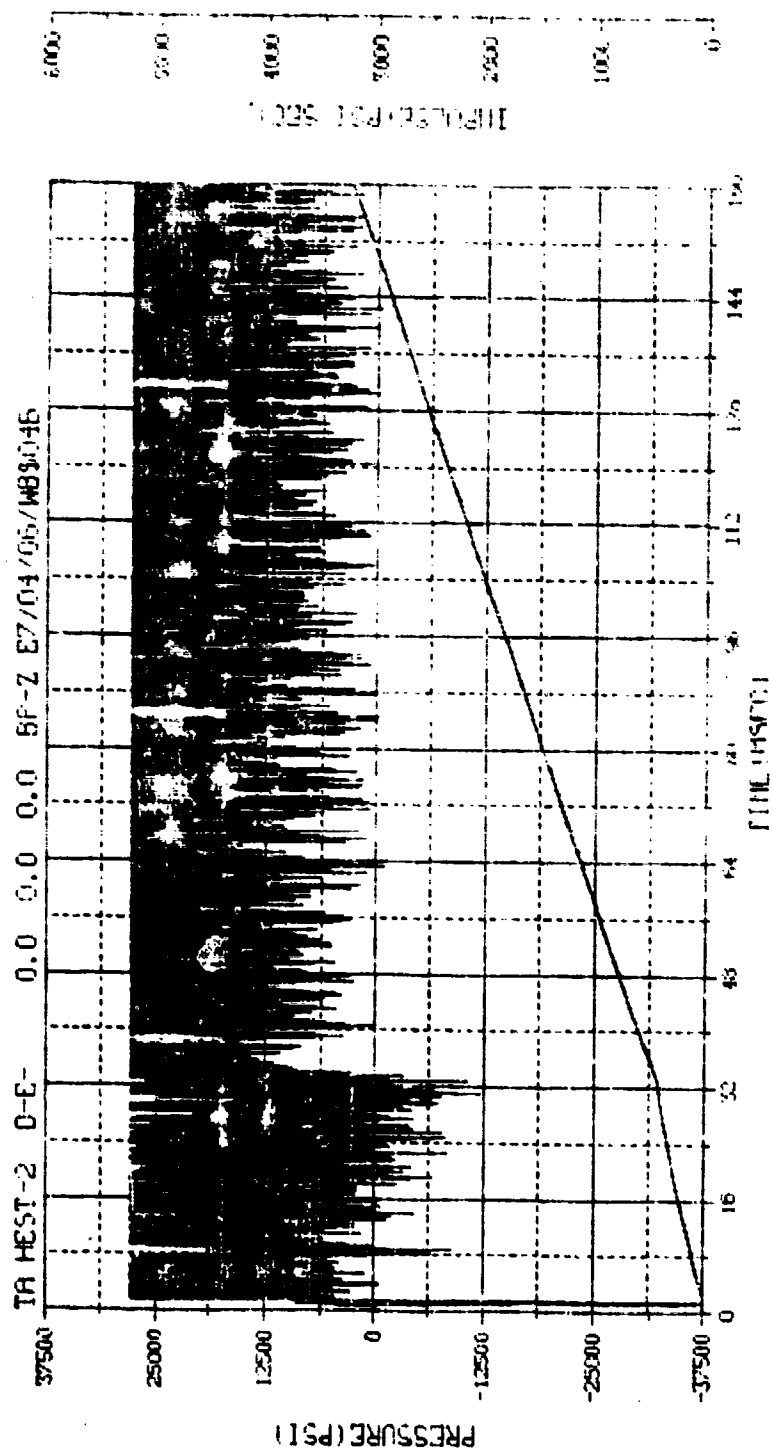
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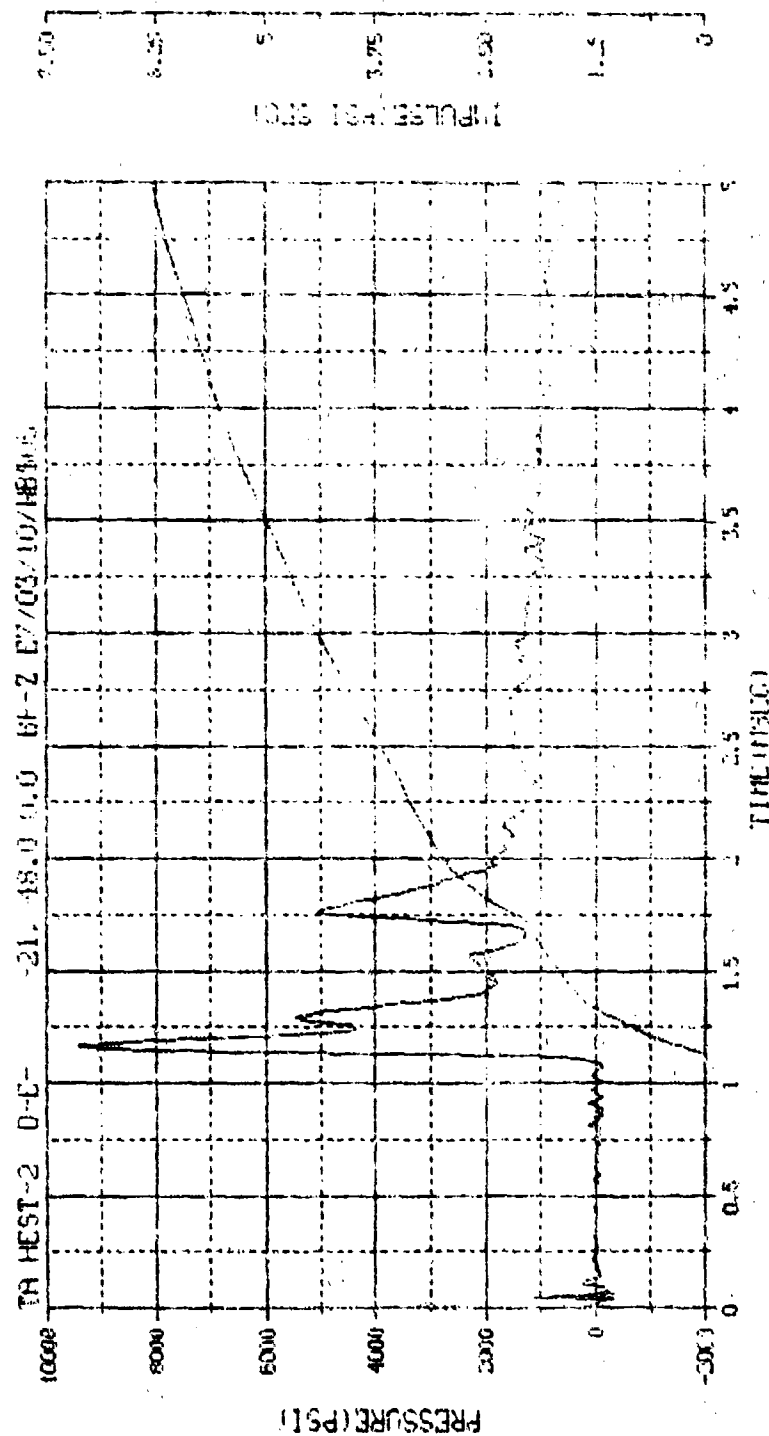
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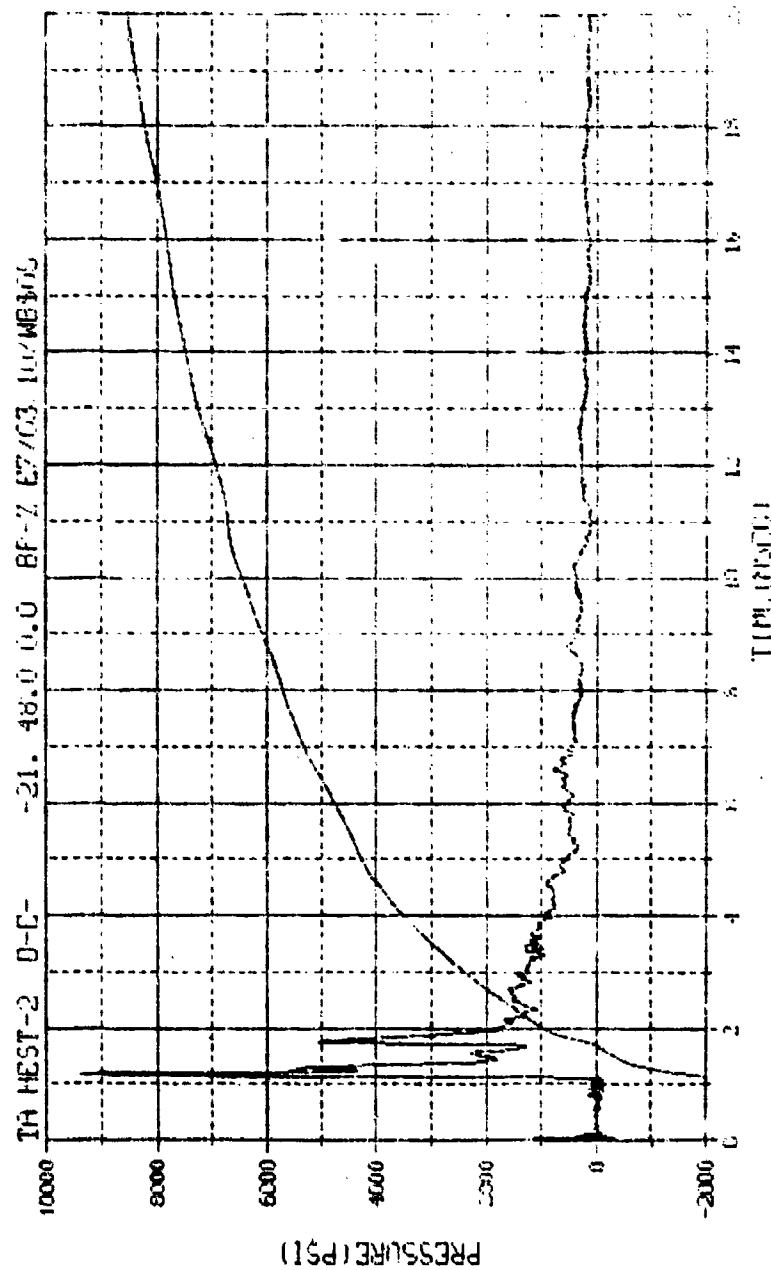


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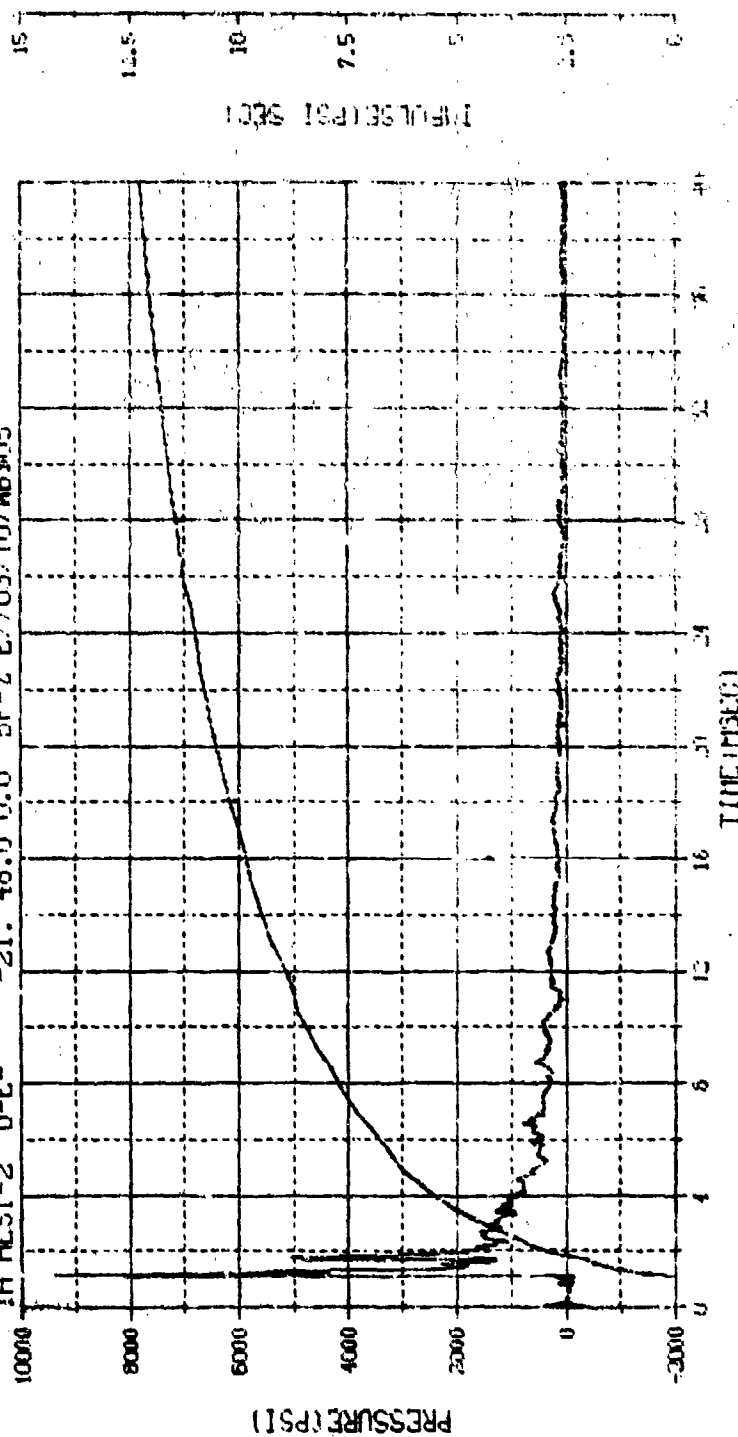
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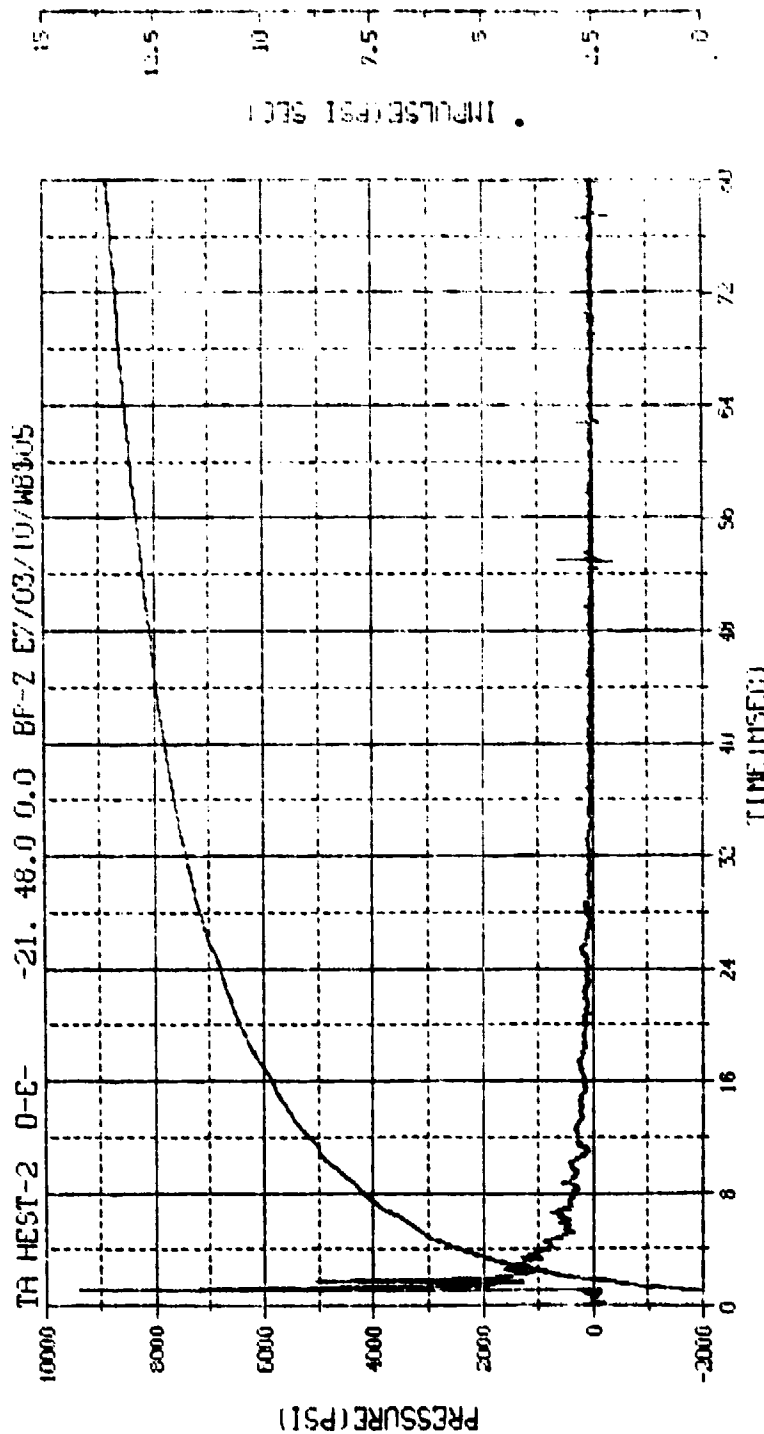


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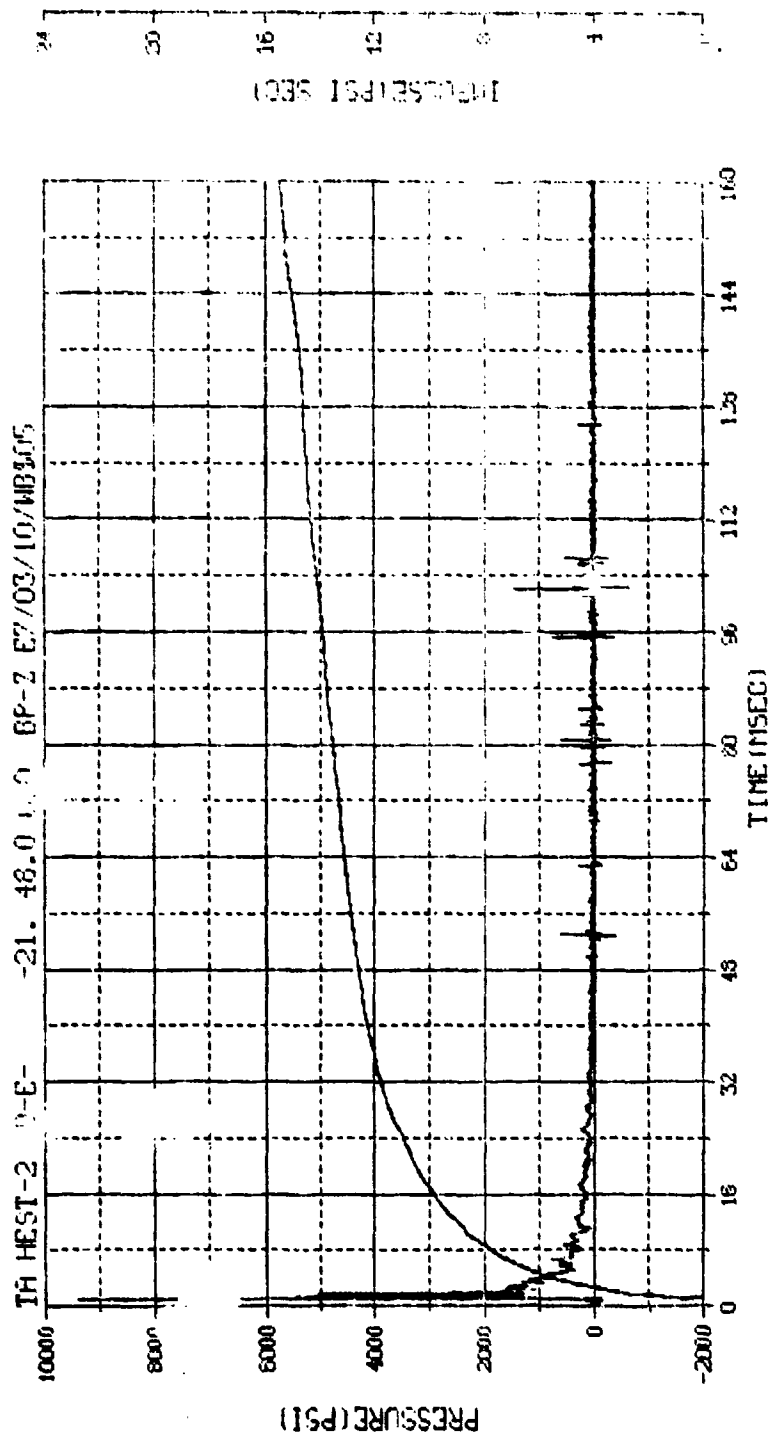
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TSKIP-15.100	DIGITS-0.000, 0.000, 0.000	TAPES
S.R. = 100.00 KHZ	10 04 PM, 28 MAR 71	FILE-48

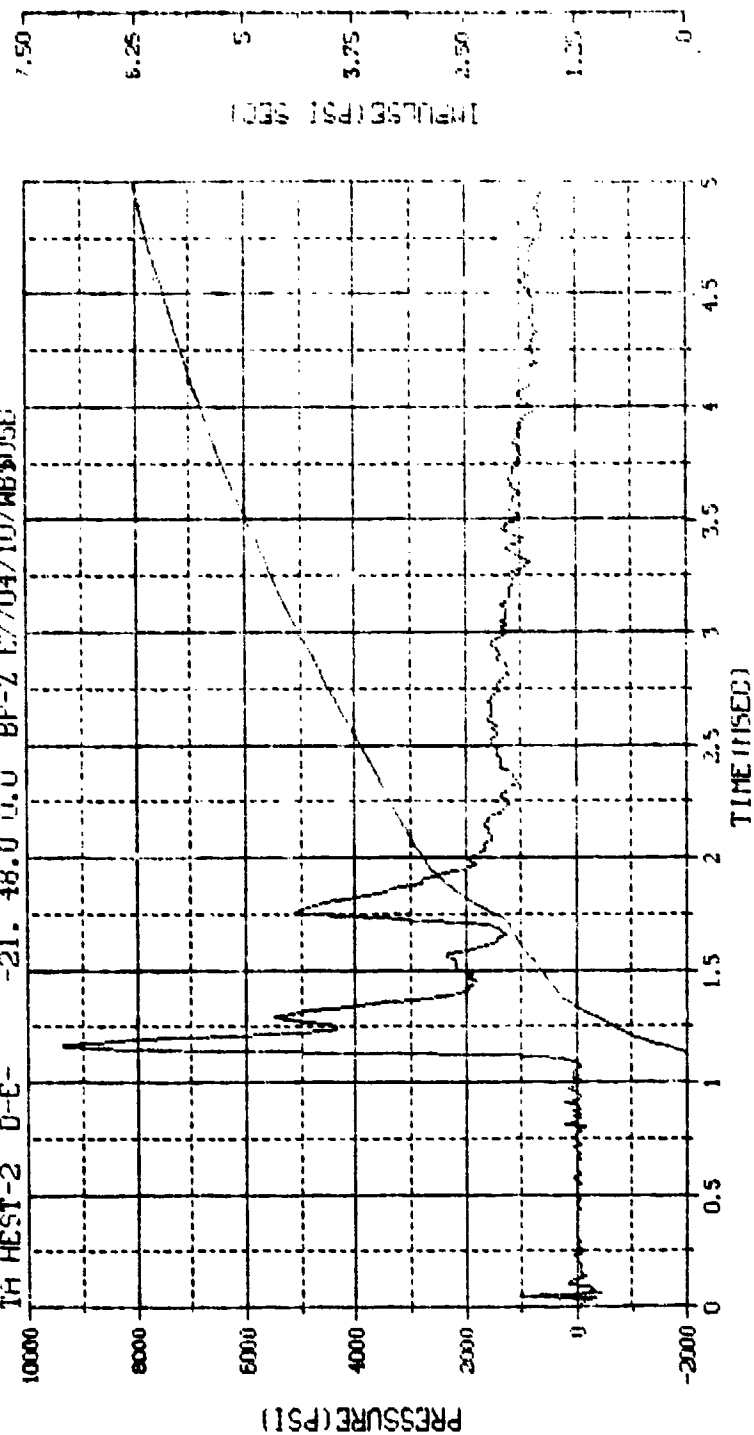


M.N. = 5	E.D. = 0.000, 5.371, 0.00	VGN
TSK IP=15.100	DISCPS=0.000, 7.221, 0.00	THPEL2
S.R. =100.00 KHZ	10 04 PM, 23 MAR 70.	FILE-48

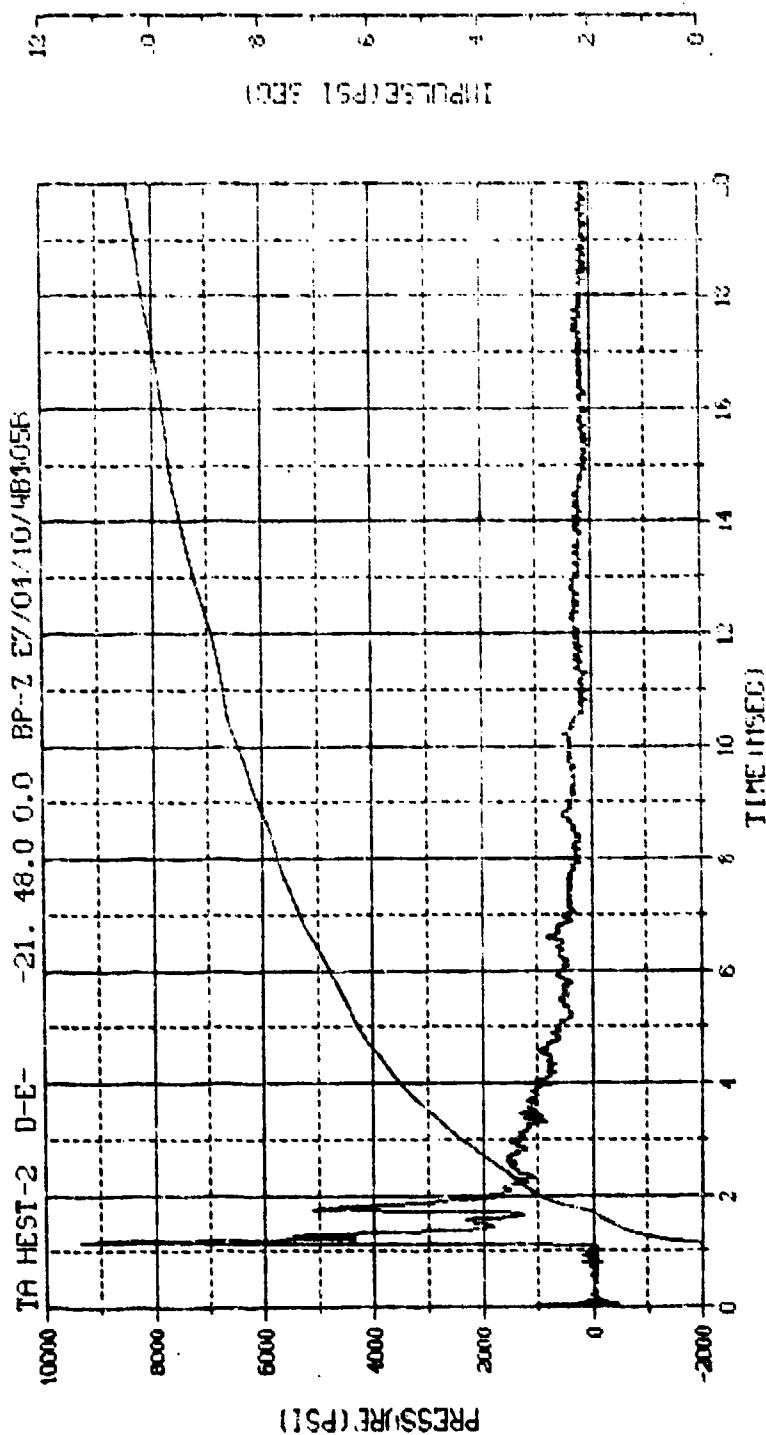


M.N. = 5	E.U. = 0.000, 5371.000	VSN =
TSKIP = 15.100	DIGITS = 0.000, 122.500	THP = 20
S.R. = 100.00 KHZ	10 04 PM, 28 MAR 78.	FILE = 46

TH HEST-2 D-E- -21. 48.0 0.0 BP-Z E7/04/10/WB305G

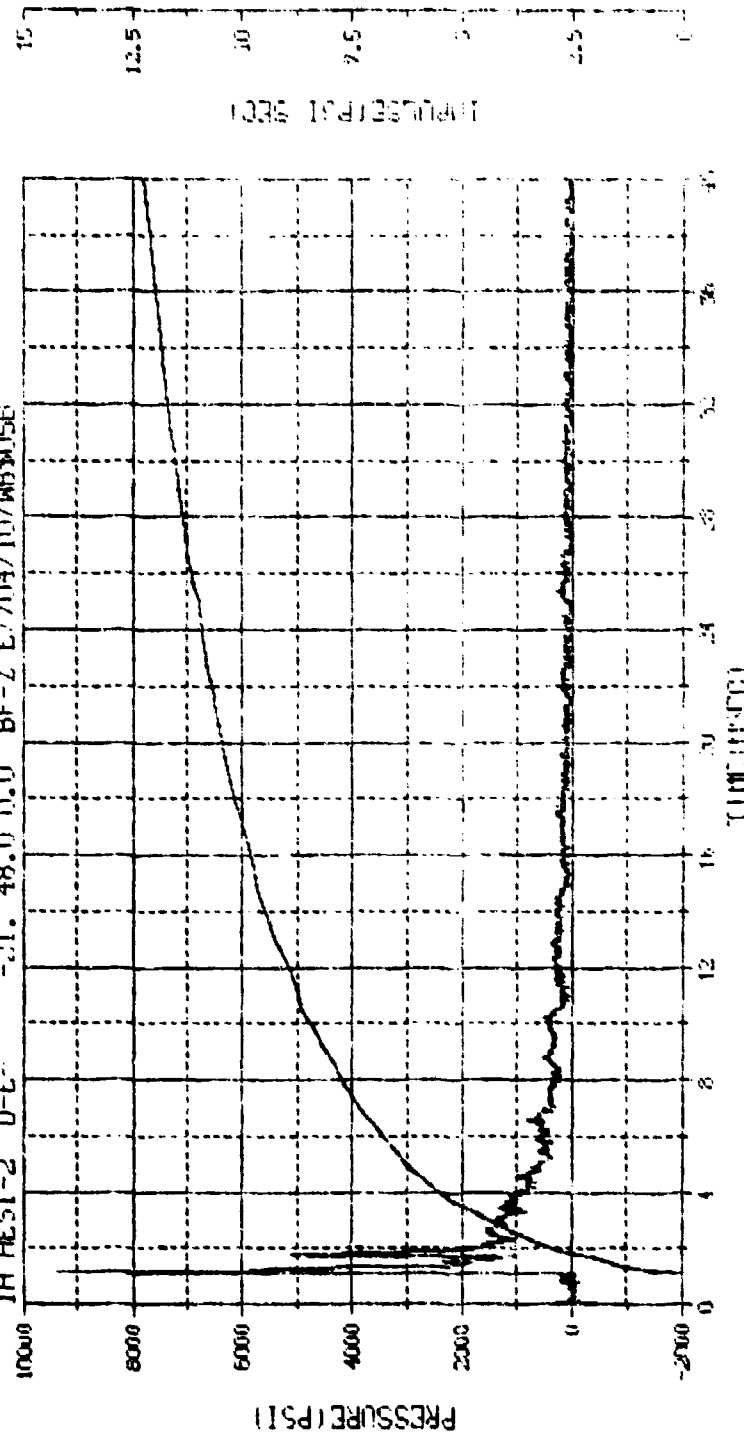


M.N. = 5	E.U. = 0.000, 5771.000	VSN
TSKIP=15.110	DIGITS=0.000, 236.000	TAPE2
S.R. =100.00 KHZ	9 00 AM, 29 MAR 78.	FILE=64



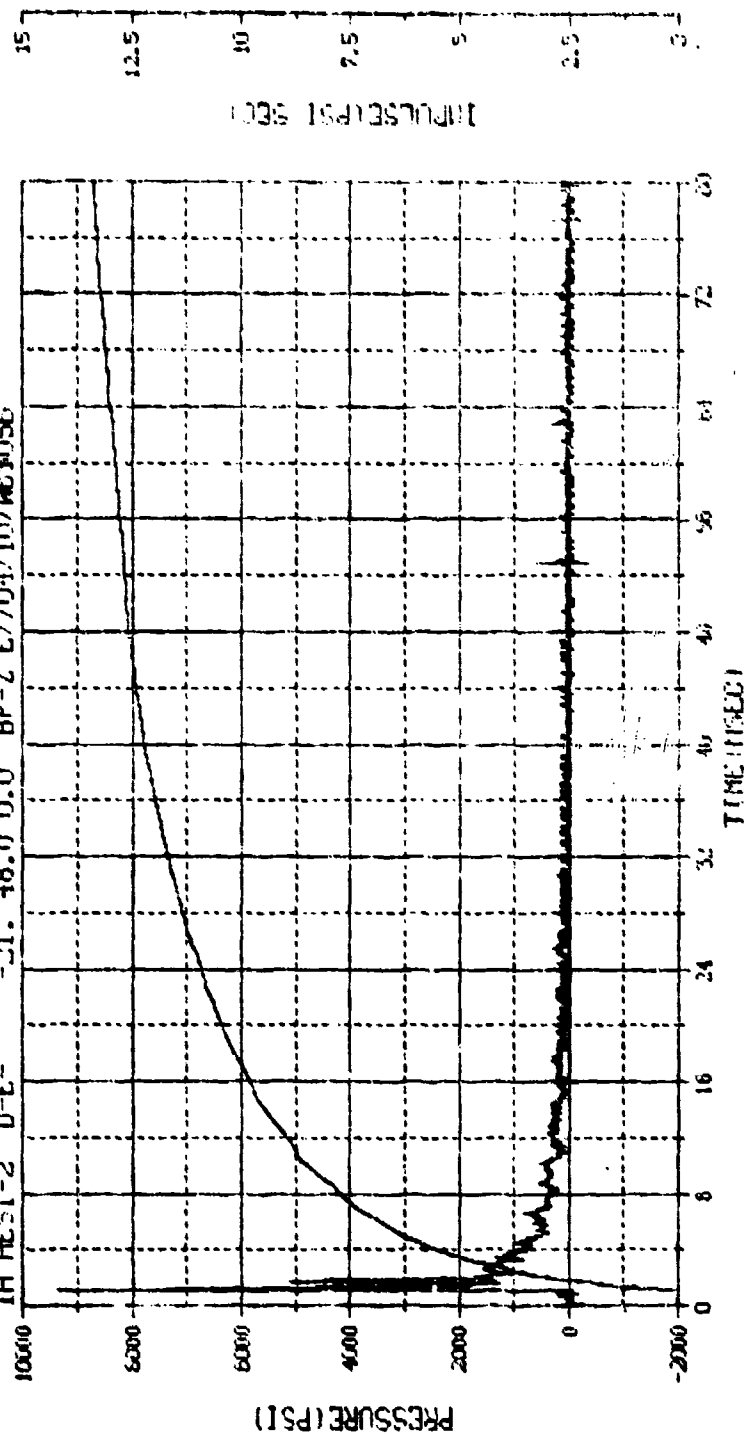
M.N. = 5 E.U. = 0.000, 1371.000 VSN-  
 TSKIP=15.110 DIGITS=0.000, 256.000 THPL22  
 S.R. =100.00 KHZ 9 00 AM, 29 MAR 75. FILE=64

TA HEST-2 D-E- -21. 48.0 0.0 BF-Z E7/D4/10/WB405E



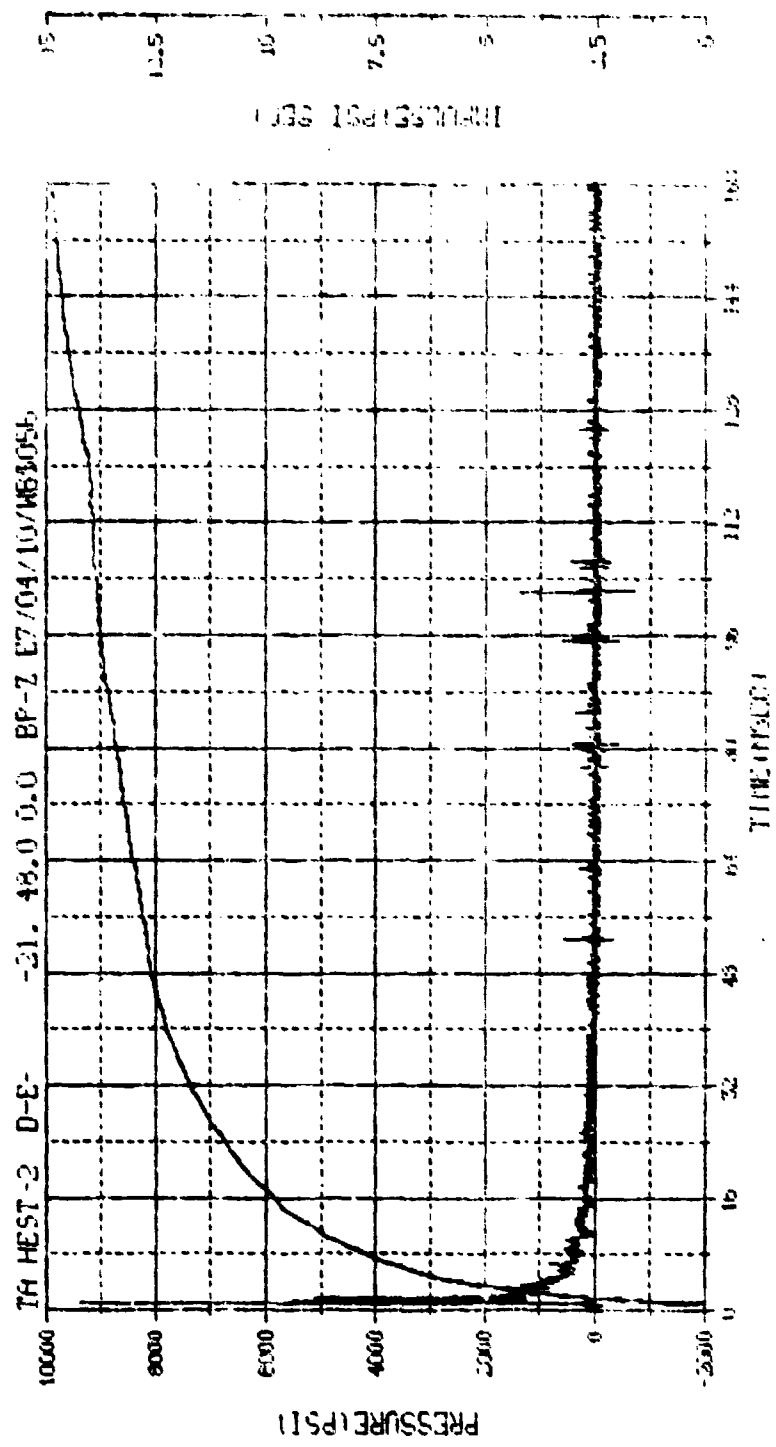
M.W. = 5	F.L. = 0.0000000000	V.M.
TSP = 15.110	HEIGHT = 0.0000000000	000000
S.F. = 100.00 HZ	10 00 14.5 1400 70.	FILE 14

TA HEST-2 D-E- -21. 48.0 0.0 BP-Z E7/04/10/MB050

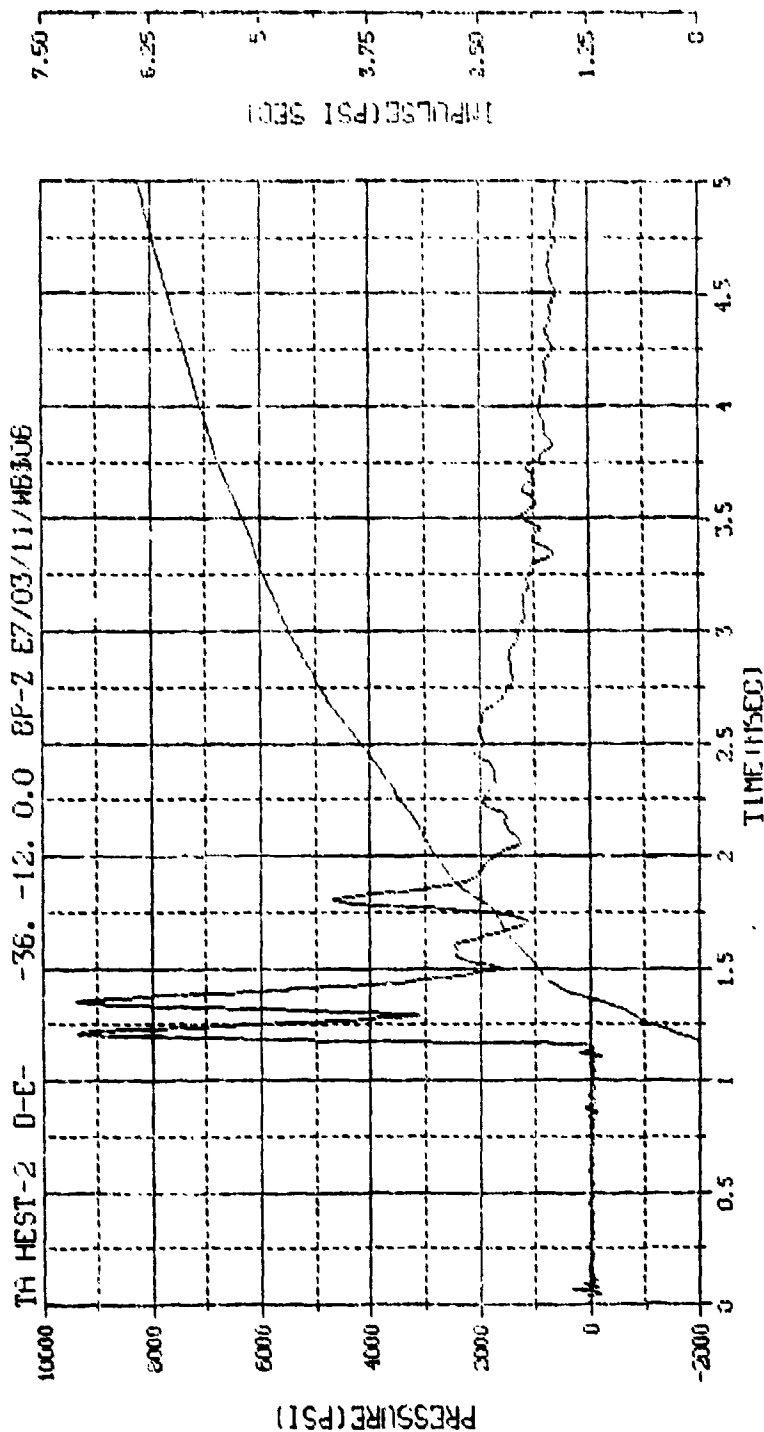


M.N. = 5	E.U. = 0.000, 0.001, 0.001	VSR
TSK (P=15.110	ULSITS=0.000, 0.001, 0.001	TAPE22
S.R. = 100.00 KHZ	10 04 PM, 28 MAR 70.	FILE-64



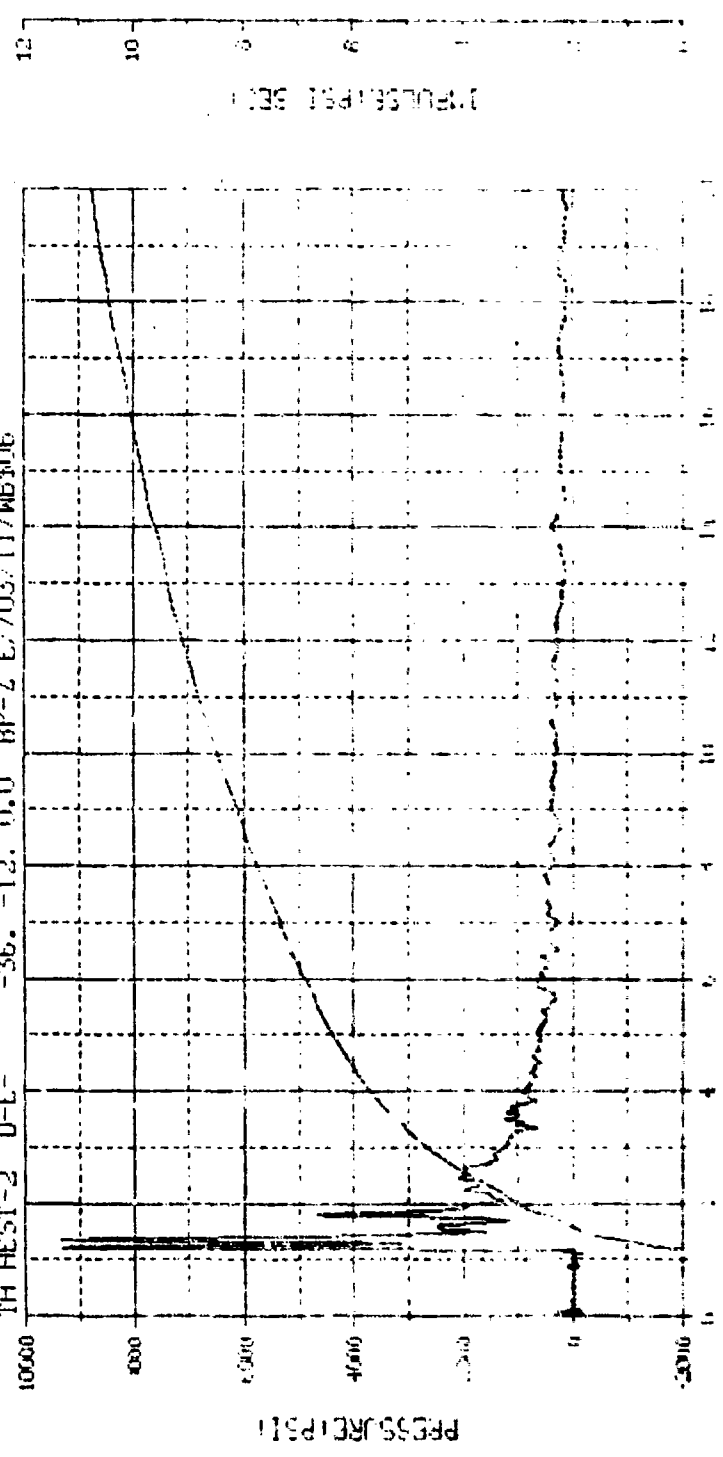


N.N. = 5	C.U. 0.000, 0.000	VSN=
TSR IP=15.110	DIRTY=0.000, 0.000	THREE
S.R. =100.00 KHZ	10 04 14.20 MIN 70.	FILE-64

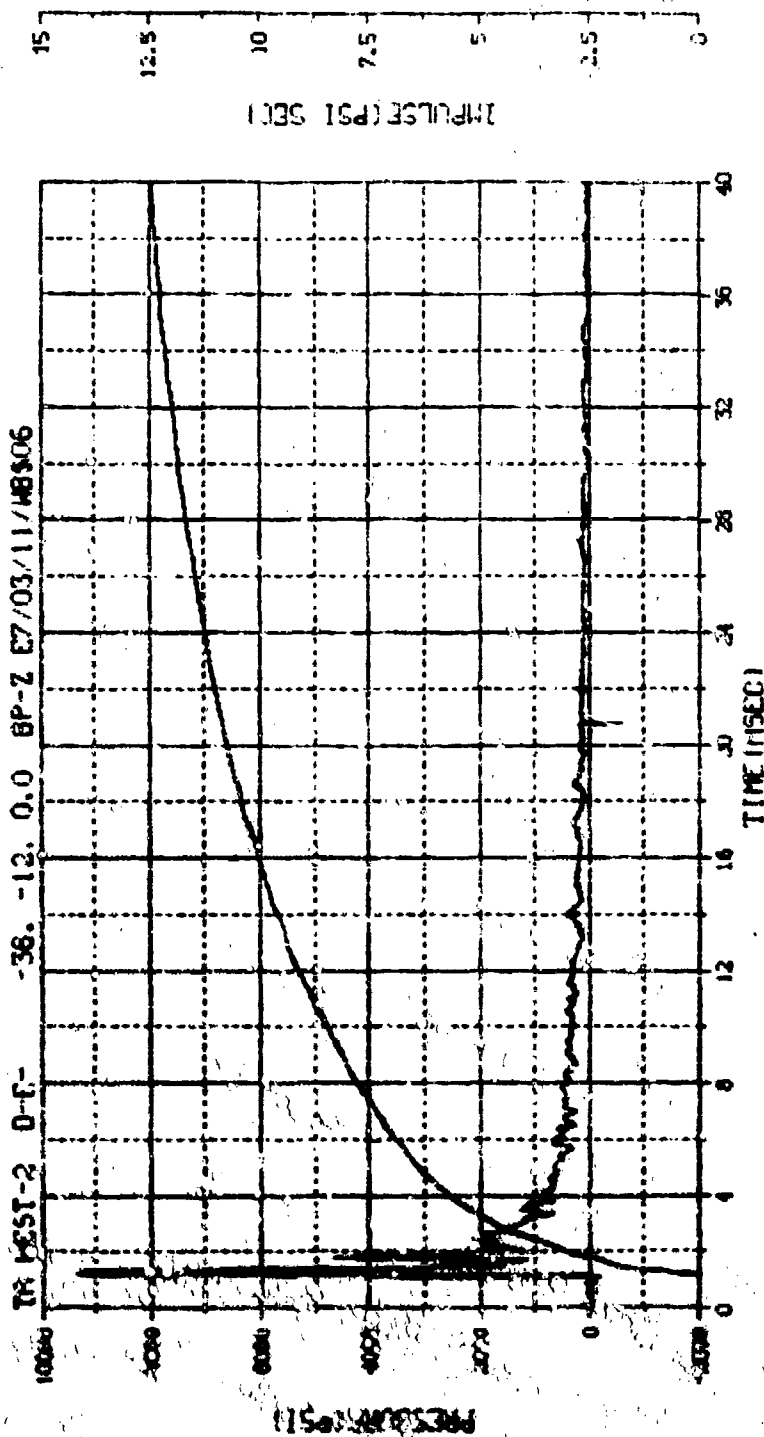


M.N. = 6	E.D. = 0.000, 5.415, 6.00	VSN =
TSKIP = 15.100	DIGITS = 0.000, 0.00, 5.00	TAPE 22
S.R. = 100.00 KHZ	10 04 PM, 28 MAR 73.	FILE = 50

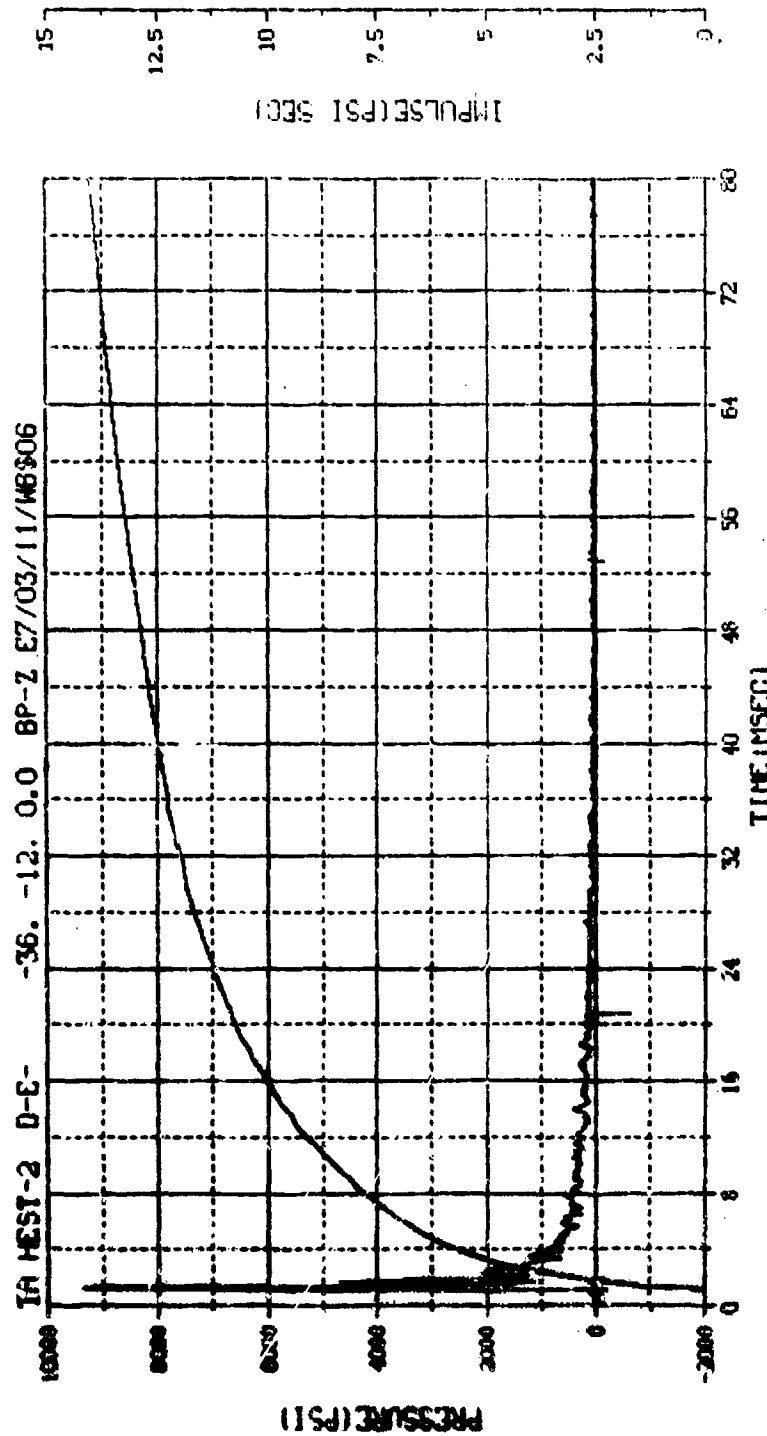
TH HEST-2 D-E- -36. -12. 0.0 BP-Z E7/03/11/WB306



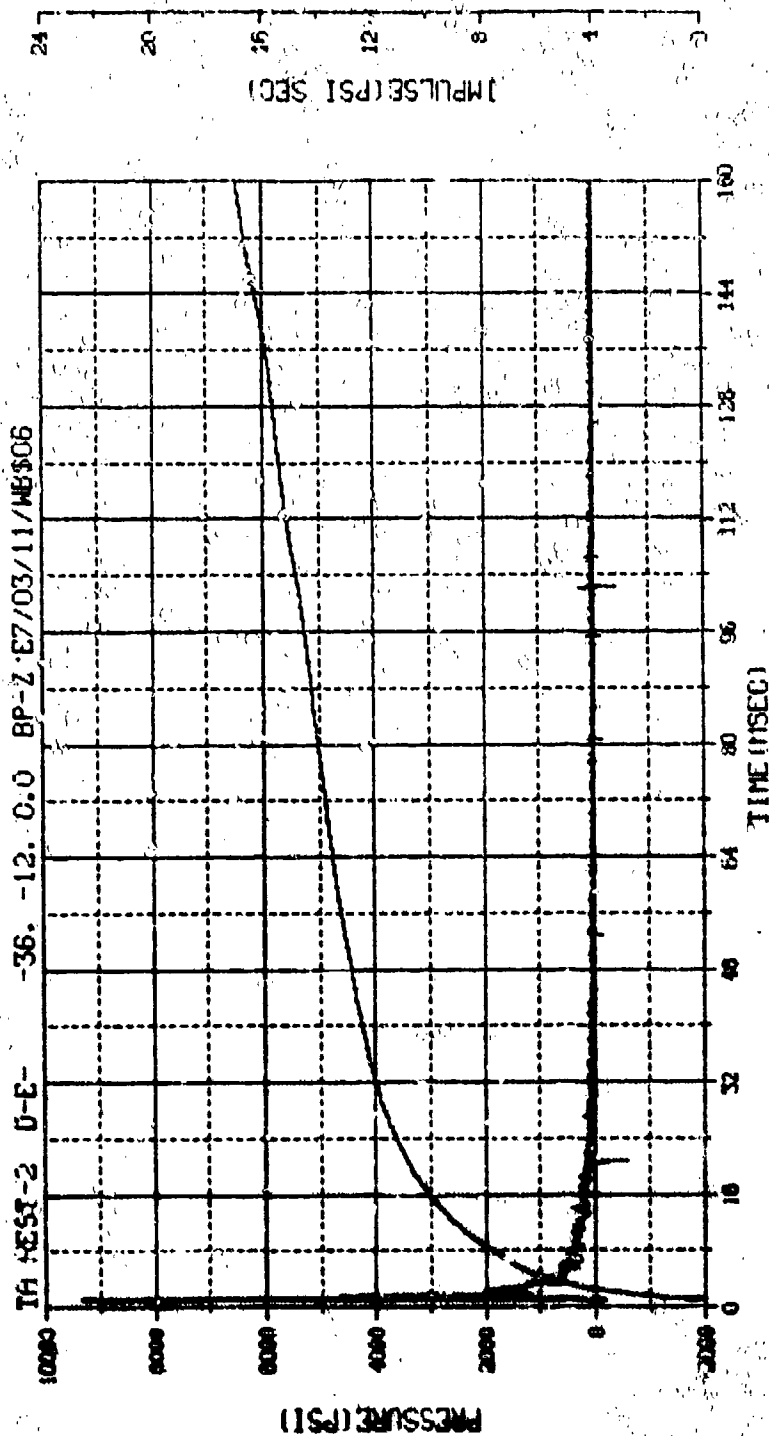
6  
 1790 IP-15.100  
 15.1 -100.00 HZ  
 10 04 PM 26 Dec 77  
 0.00 0.0000 0.0000  
 0.00 0.0000 0.0000  
 0.00 0.0000 0.0000



M.N. = 6	E.U. = 0.000, 5-16.000	VSN =
TSR (P) = 15.100	DIGITS = 0.000, 066.000	TAPE 20
S.R. = 100.00 KHZ	10 04 PM, 28 MAR 78.	FILE 50

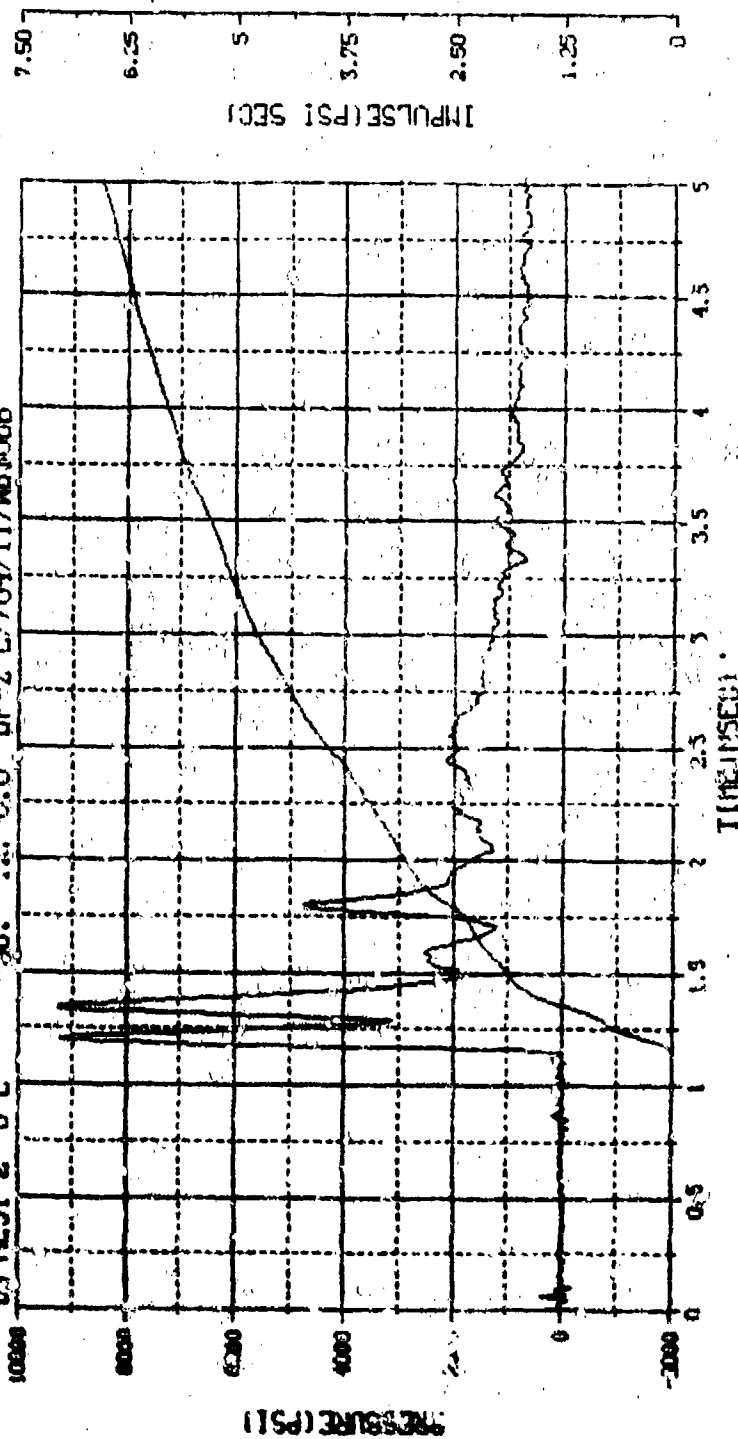


IN. - 8	E.U. -0.000,5418,600	VSN-
TSR IP-15.100	UIGITS-U.000,066,500	TAPE22
S.F. -100.00 KHZ	10 04 PM, 28 MAR 70.	FILE=50



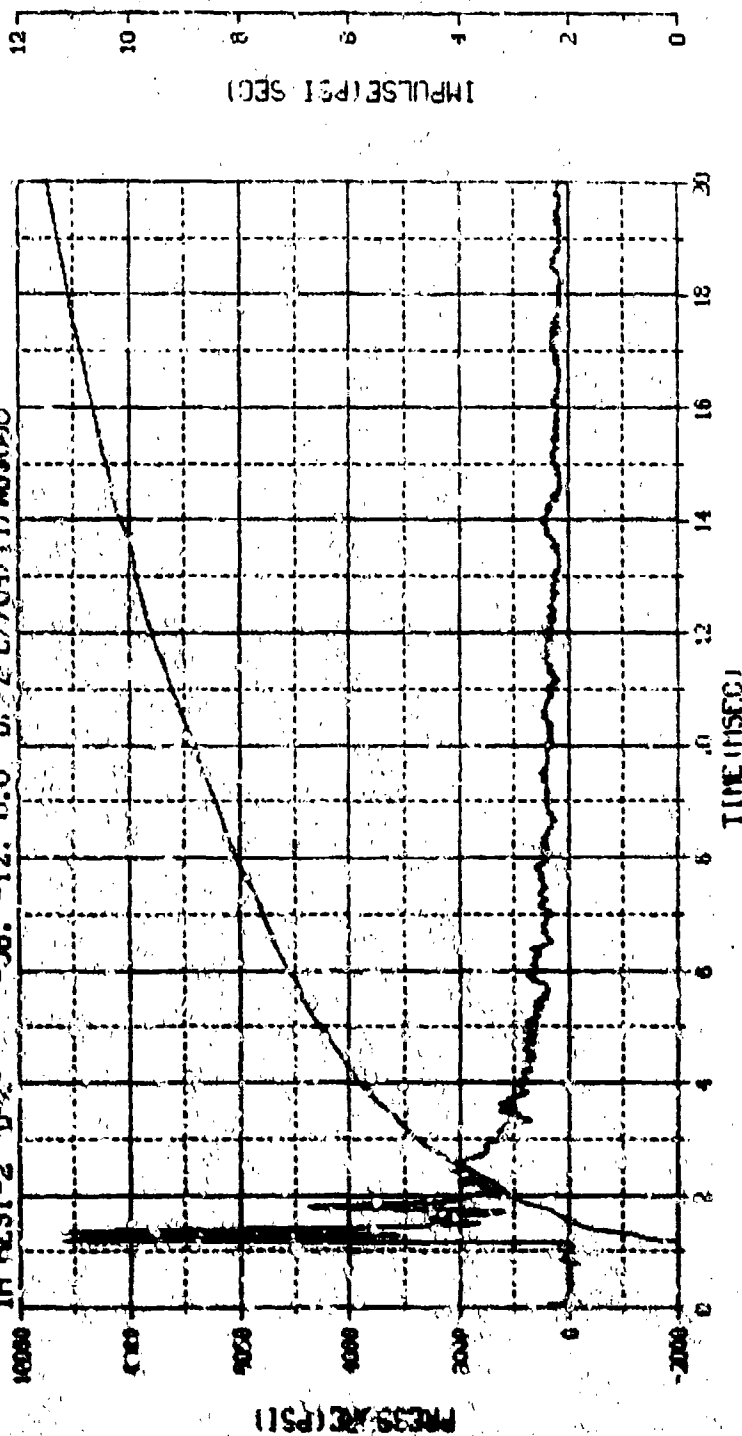
M.N. - 6	E.U. -0.000, 5416.000	VSN-
TSKIP-15.100	DIGITS-0.000, 486.500	TAPE22
S.R. -100.00 KHZ	10 04 PM, 23 MAR 73.	FILE-50

TA HEST-2 D-C 36. -12. 0.0 BP-Z E7/07/11/MBNGB



M.N. - 6	E.U. - 0.0001, 5416.600	VSN-
TSKIP-15.110	DIGITS-0.0001, 312.000	TAPE22
S.R. - 100.00 KHZ	9 00 AM, 21 MAR 78.	FILE-06

TA HEST-2 9-2- -55. -12. 0.0 BP-7 E7/04/11/MB905B

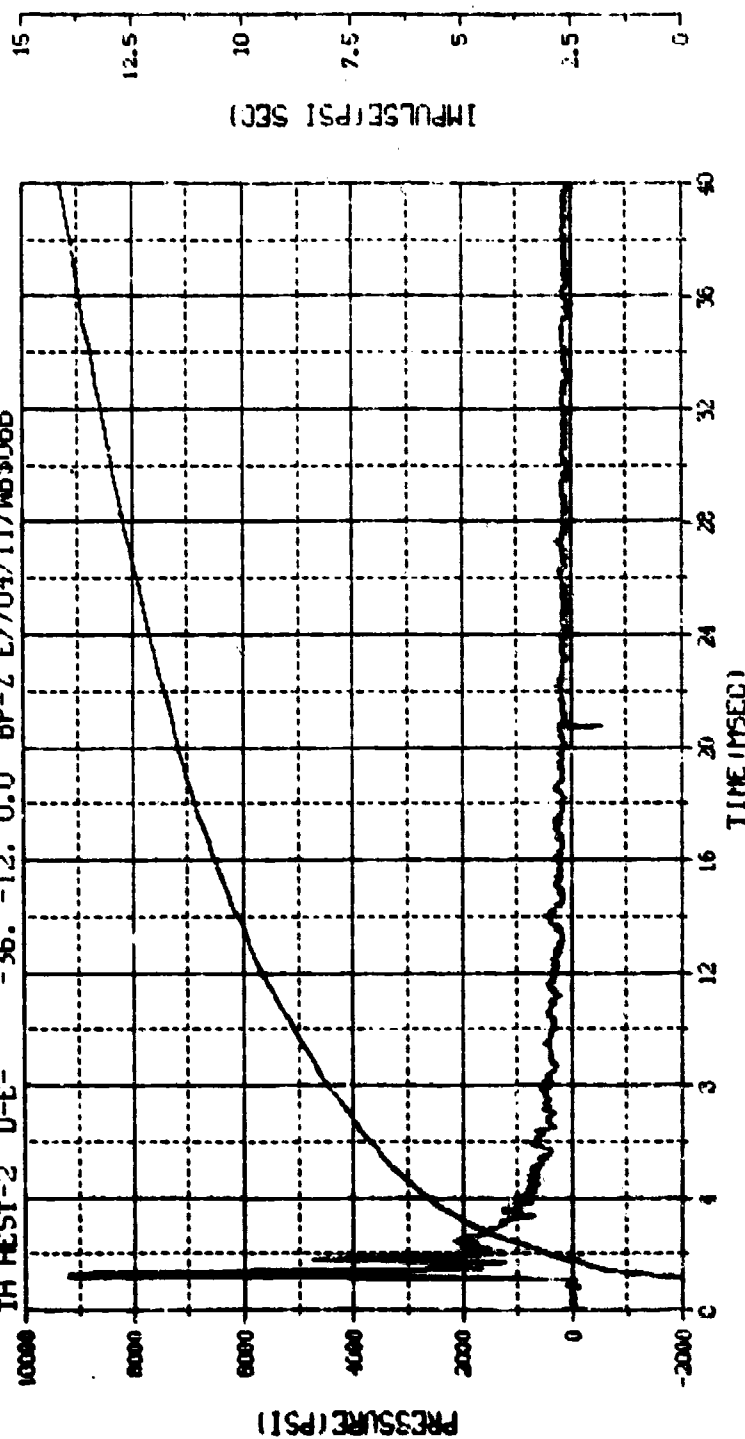


IMPULSE (PSI SEC)

M.N. - 6	E.U. -0.000, 5416.600	VSN-
TSK IP-15.110	DIGITS-0.000, 112.500	TAPE22
S.R. -100.00 KHZ	9 00 AM, 29 MAR 75.	FILE-86

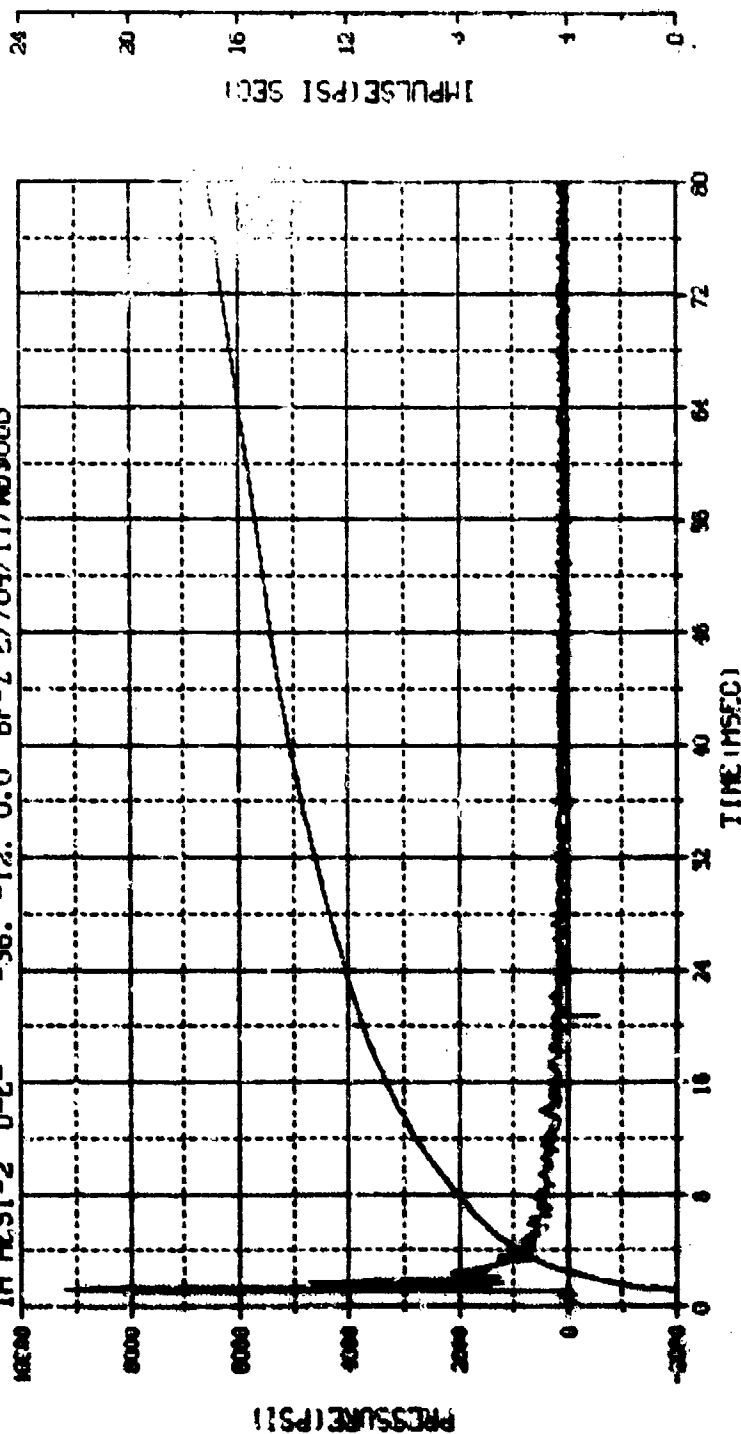


TA HEST-2 D-E- -36. -12. 0.0 BP-Z E7/04/11/WB\$06B

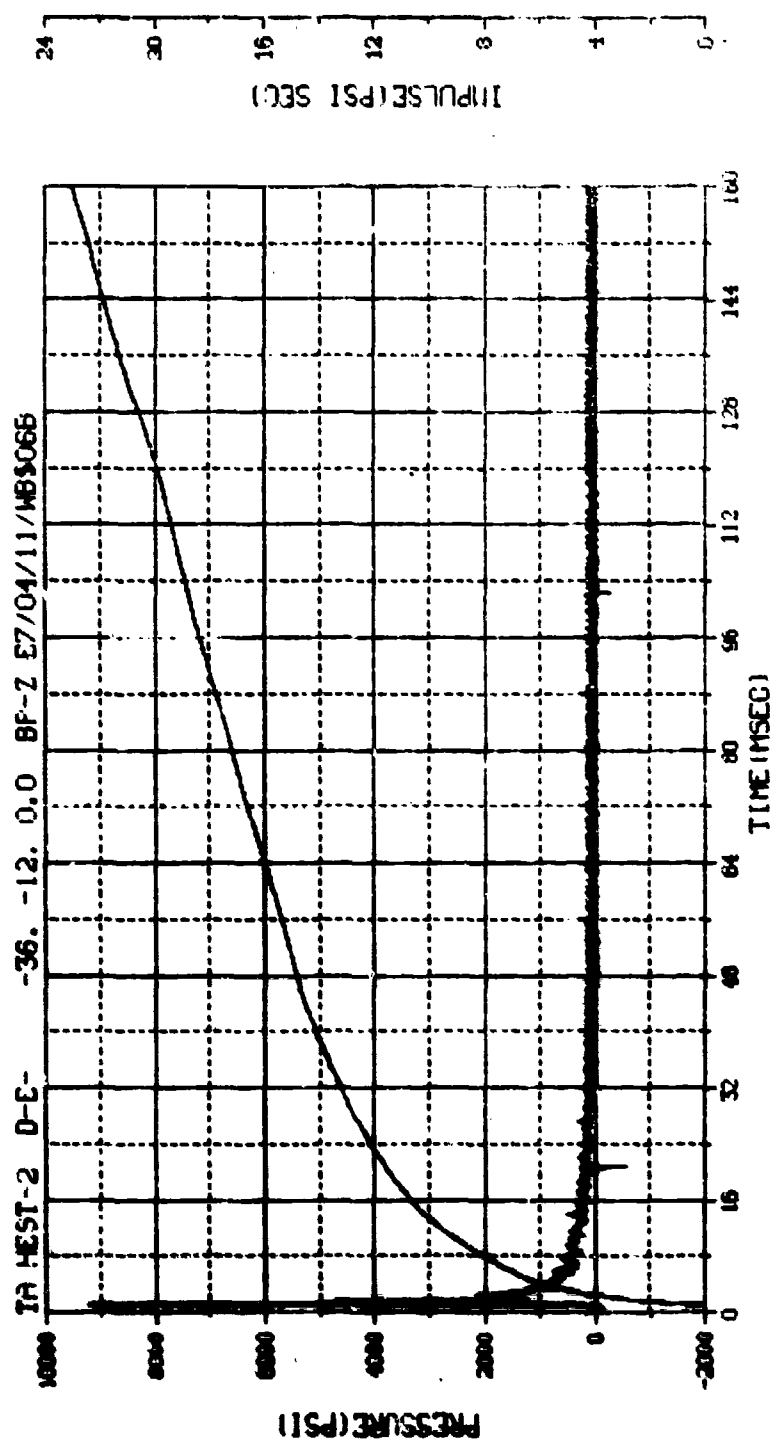


M.N. - 6	E.U. -0.000,5416,100	VSN-
TSKIP-15.110	DIGIT-0.000,333,441	TAPE22
S.R. -100.00 KHZ	10 04 PM,20 MAR 76.	FILE-66

TA HEST-2 0-E- -36. -12. 0.0 BP-Z E7/04/11/MB506B

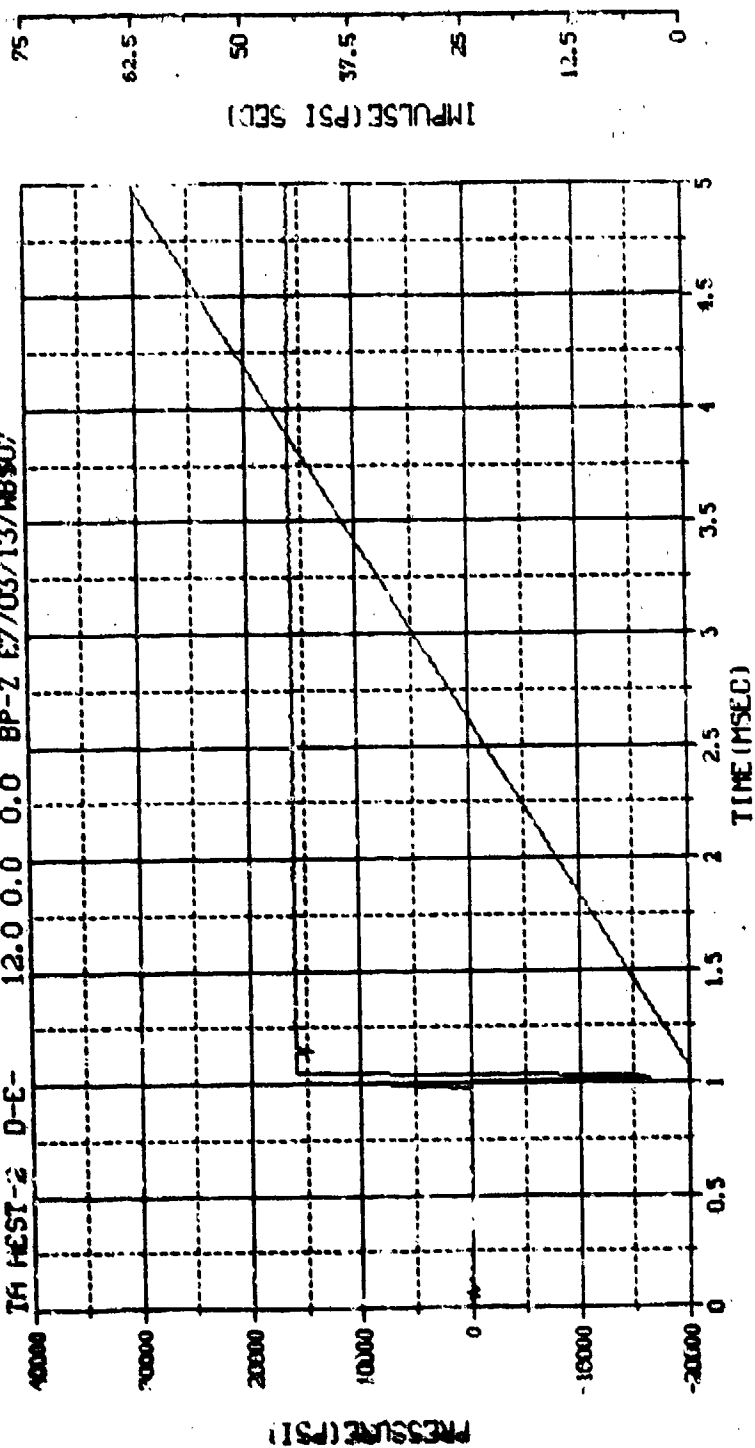


M.A. - 6	E.U. -0.000, 5416.600	VSN-
TSKIP-15.110	DIGITS-0.000, 392.500	TAPE22
S.R. -100.00 KHZ	10 04 PM, 28 MAR 72.	FILE-66

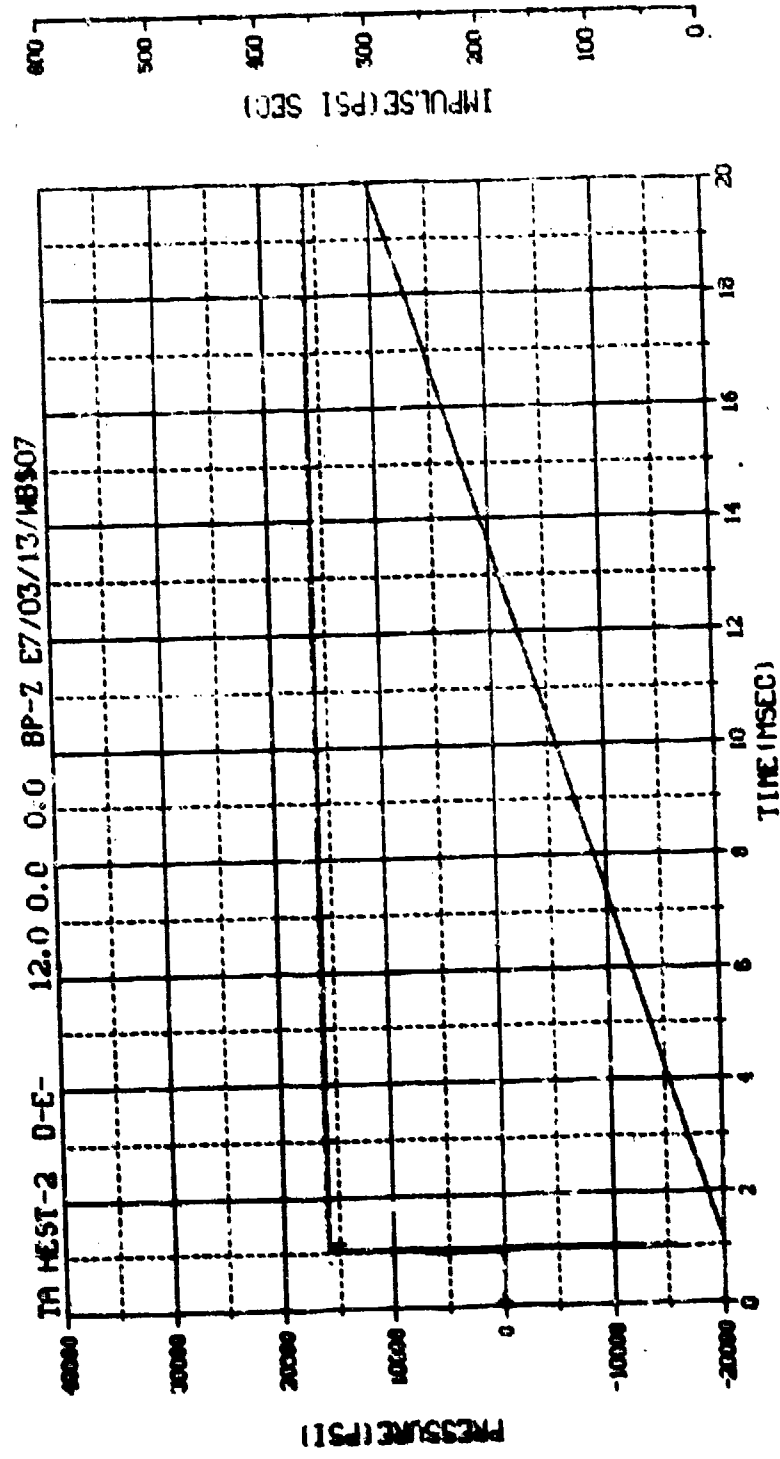


M.N. - 6	E.U. -0.000,5416.600	VSN-
TSKIP-15.110	DIGITS-0.000,392.500	TAPE22
S.R. -100.00 KHZ	10 04 PM, 28 MAR 76.	FILE-66

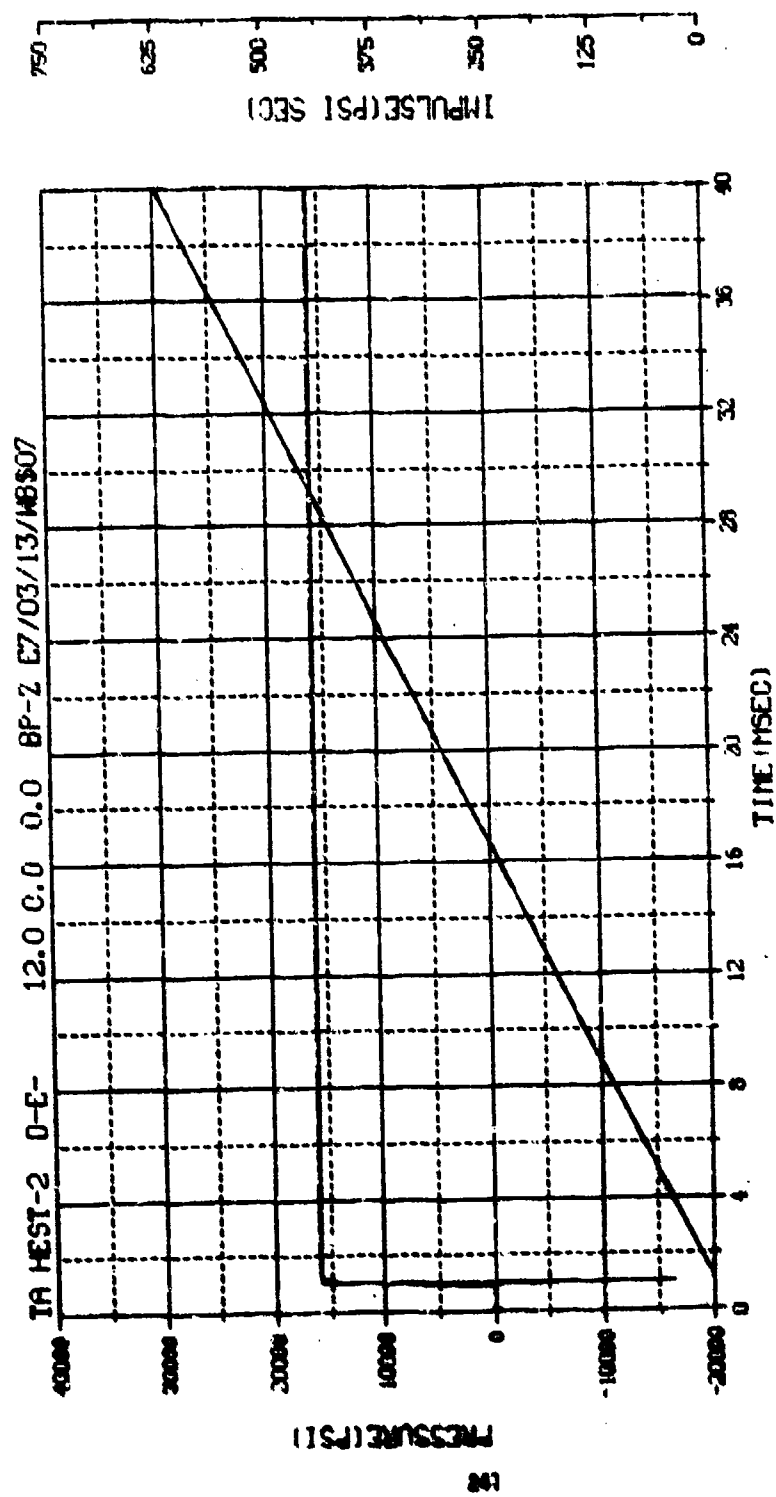
TA TEST-2 D-E- 12.0 0.0 0.0 BP-Z E7/03/13/MS907



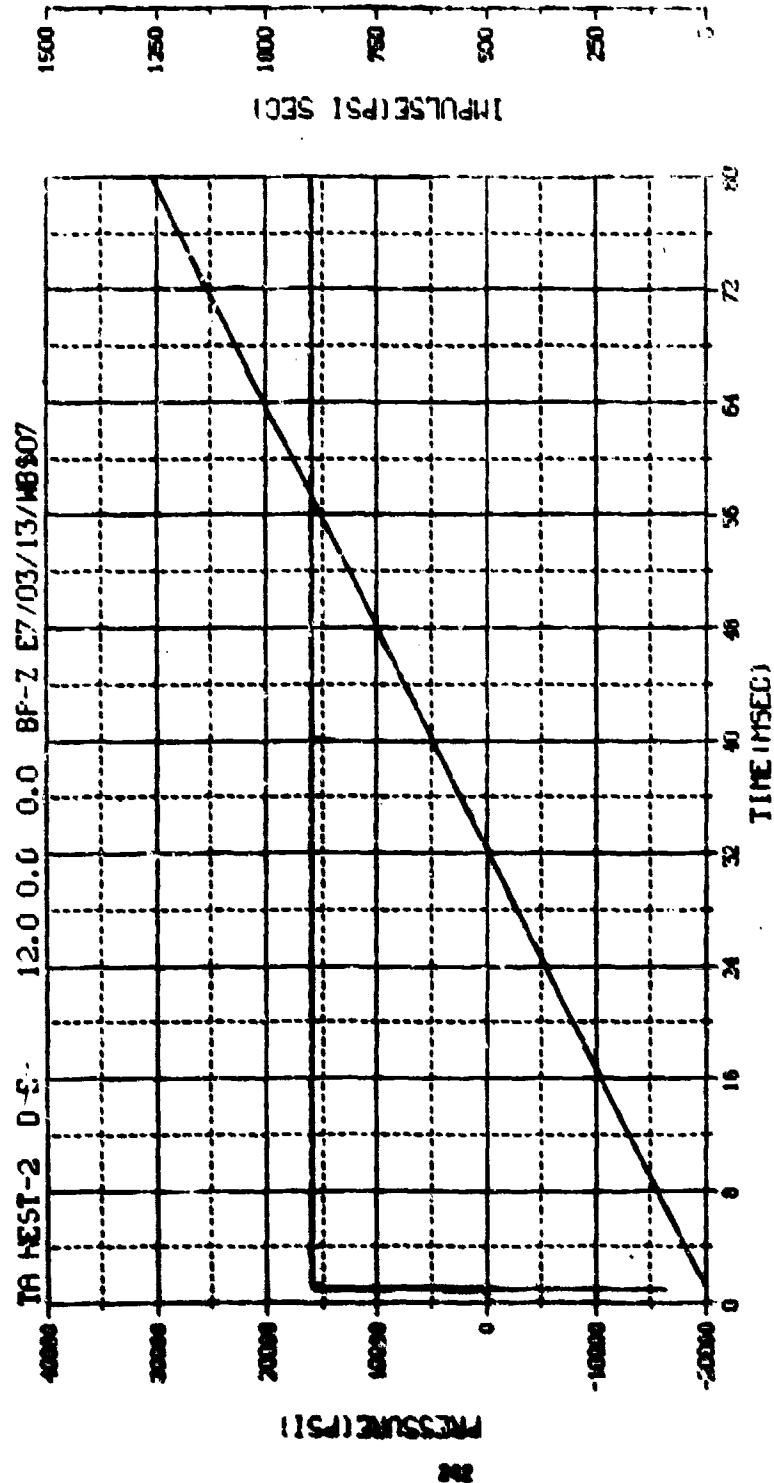
M.N. - 7	E.U. -0.000, 6577.000	VSN- TAPE22
TSKIP-15.100	DIGITS-0.000, 757.000	FILE-52
S.R. -100.00 KHZ	10 04 PM, 28 MAR 78.	



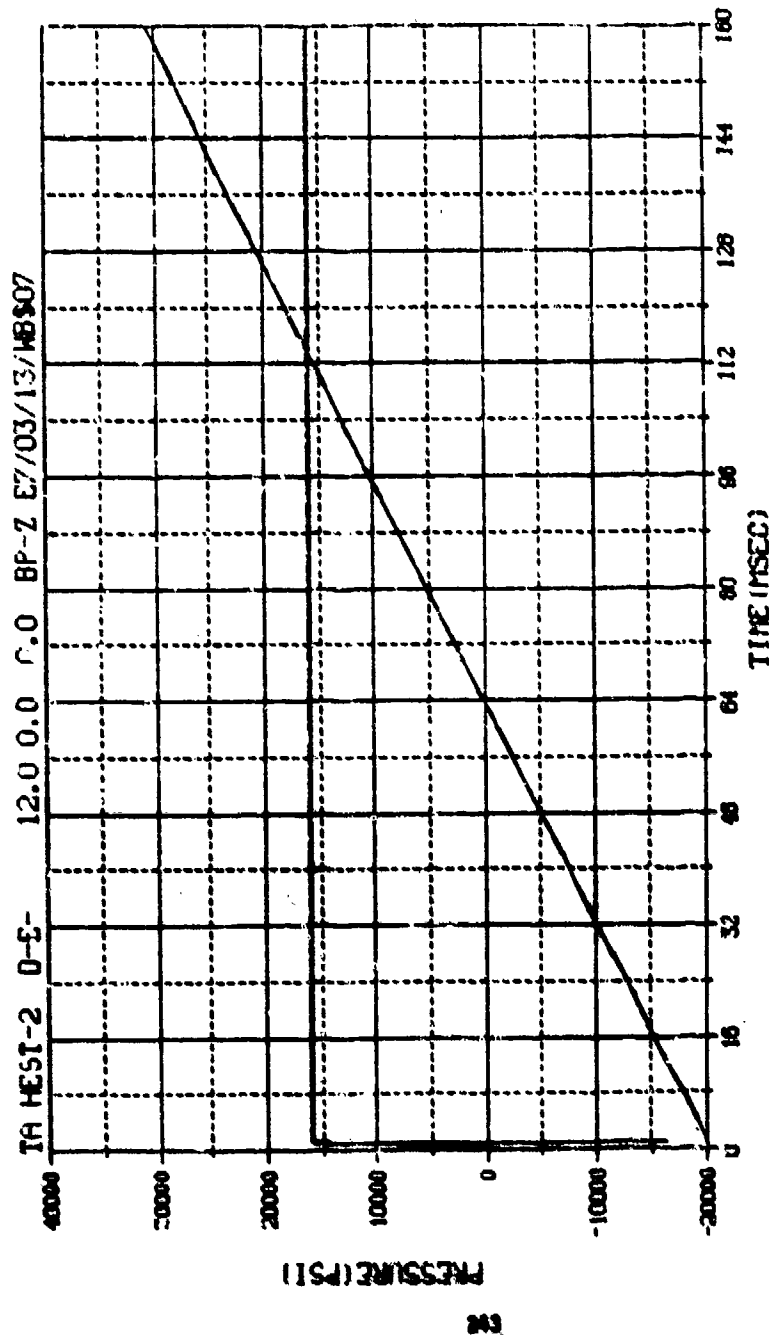
M.N. = 7	E.U. -0.000,6577.000	VSN-
TSKIP-15.100	DIGITS-0.000,757.000	TAPE22
S.R. -100.00 KHZ	10 04 PM, 28 MAR 78.	FILE=52



M.N. - 7	E.U. -0.000,6577.000	VSN-
TSKIP-15.100	DIGITS-0.000,757.000	TAPE22
S.R. -100.00 KHZ	10 04 PM, 23 MAR 73.	FILE-52

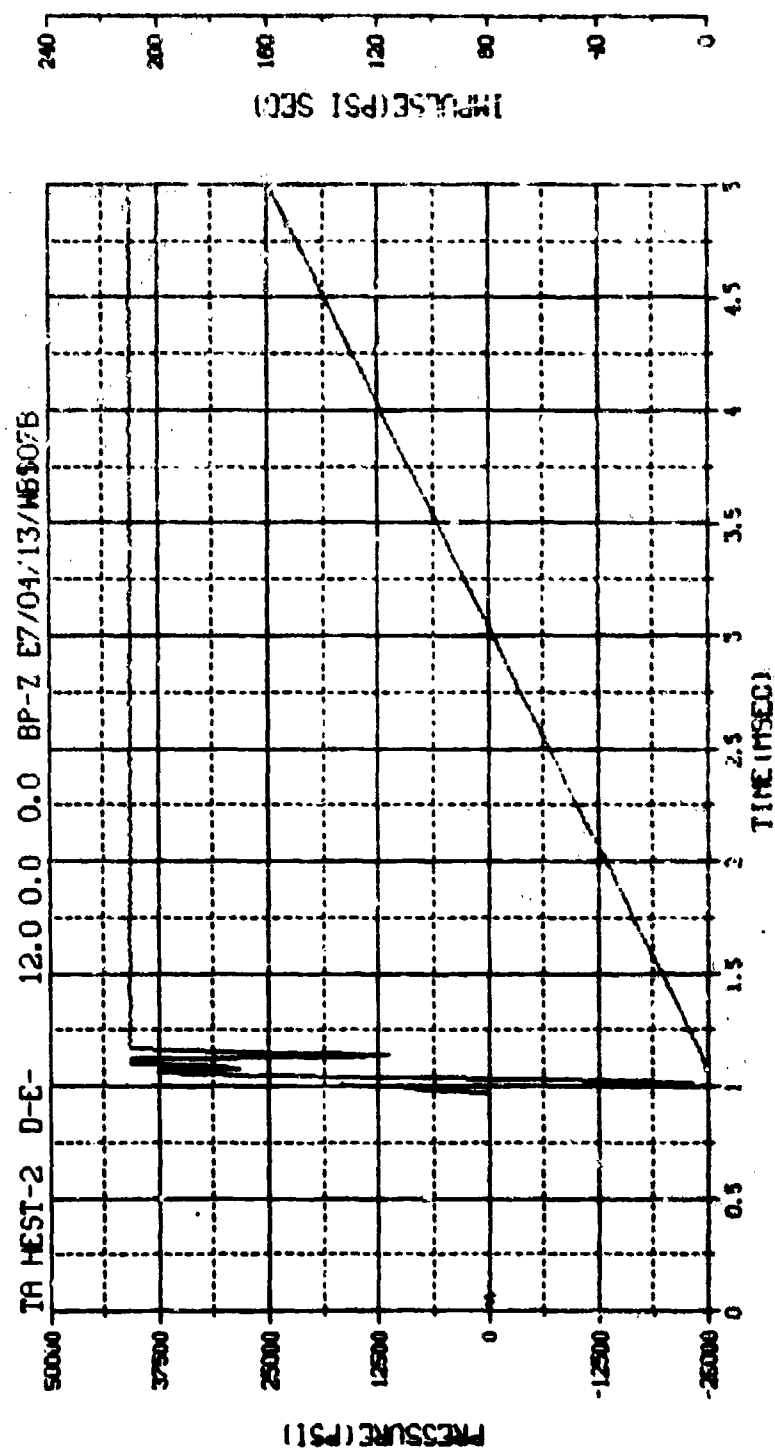


M.N. - 7 E.U. -0.000,6577,000 VSN-  
 TSKIP-15.100 DIGITS-0.000,757,000 TAPE22  
 S.R. -100.00 KHZ 10 04 PM, 26 MAR 78. FILE-52

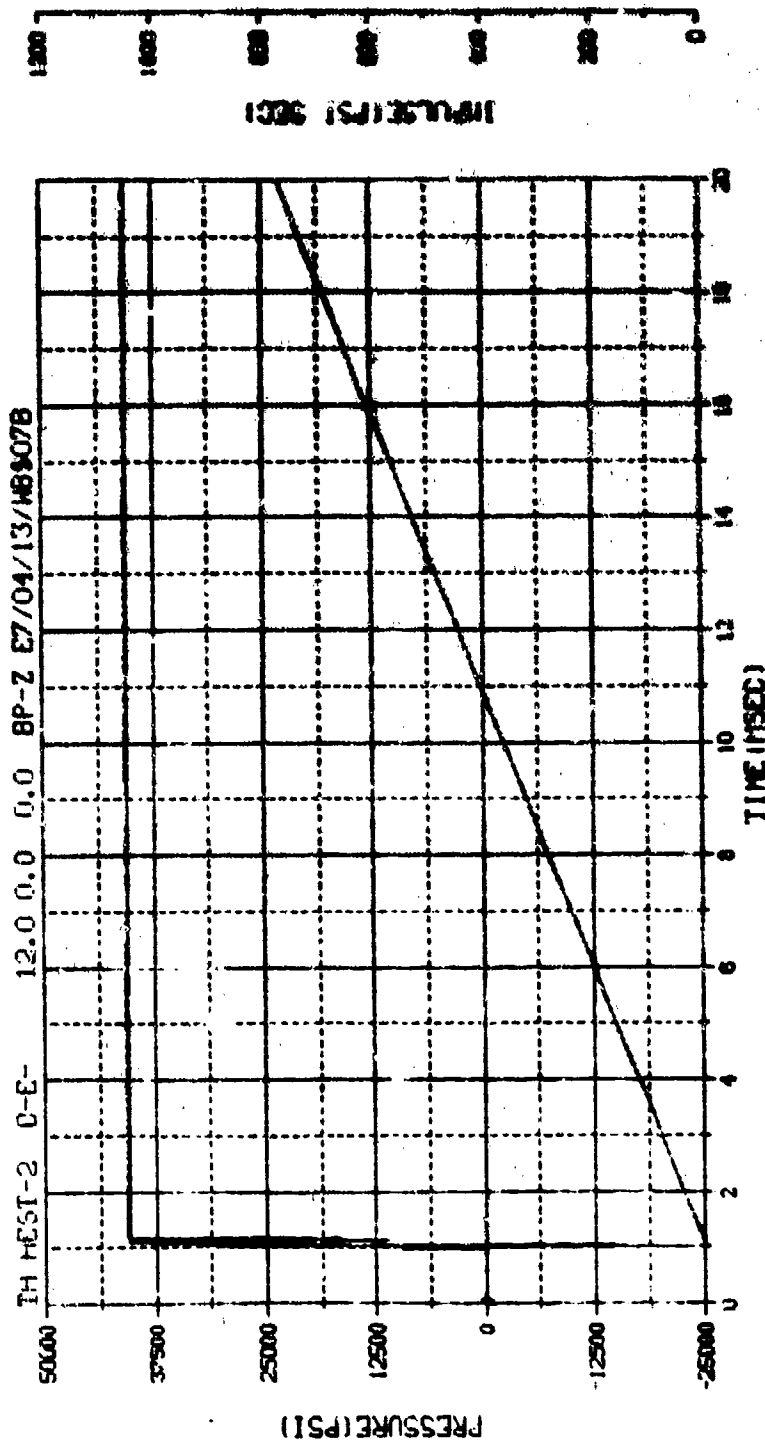


M.N. - 7	E.U. -0.000,6577.000	VSN-
TSKIP-15.100	DIGITS-0.000,757.000	TAPE22
S.R. -100.00 KHZ	10 04 PM, 28 MAR 78.	FILE-52

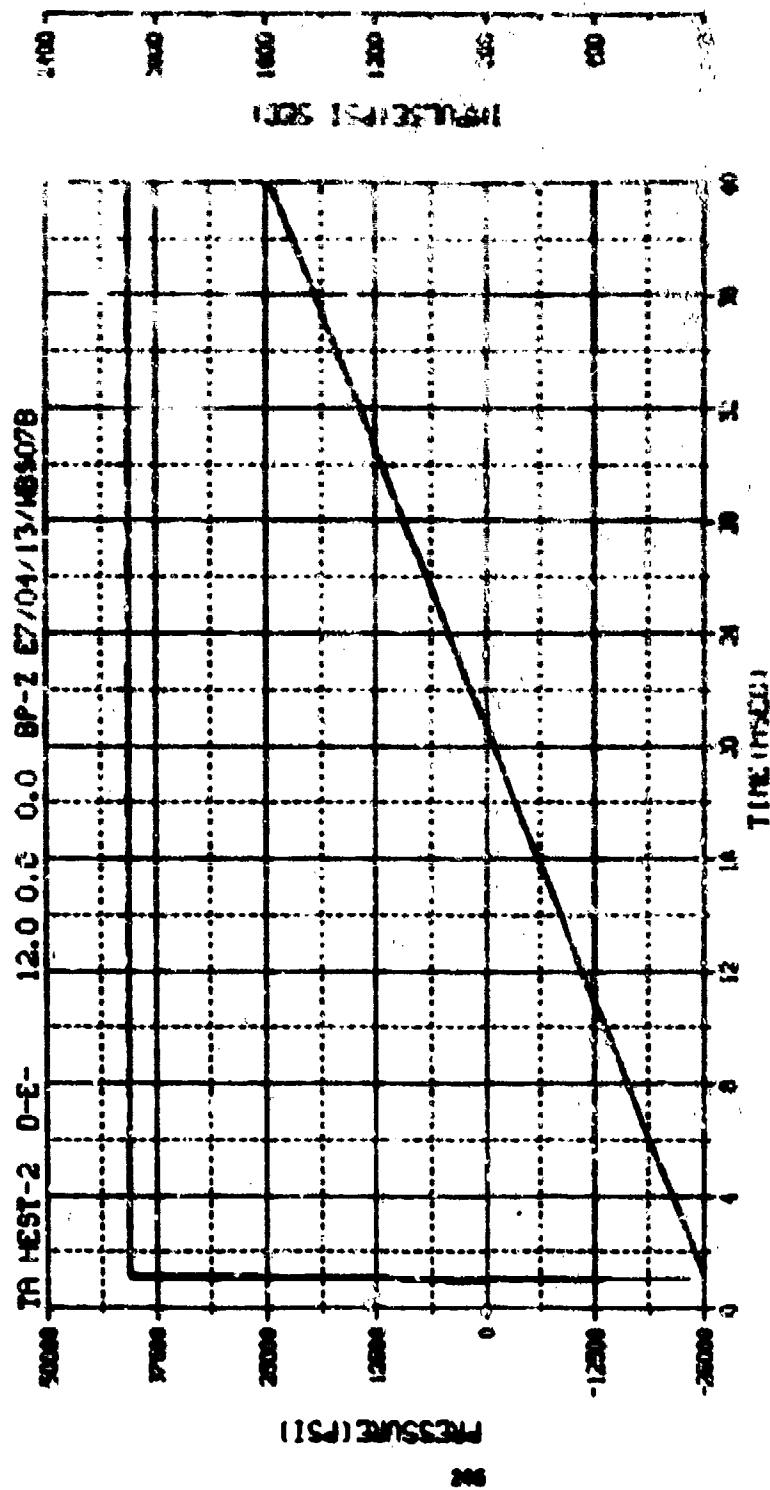




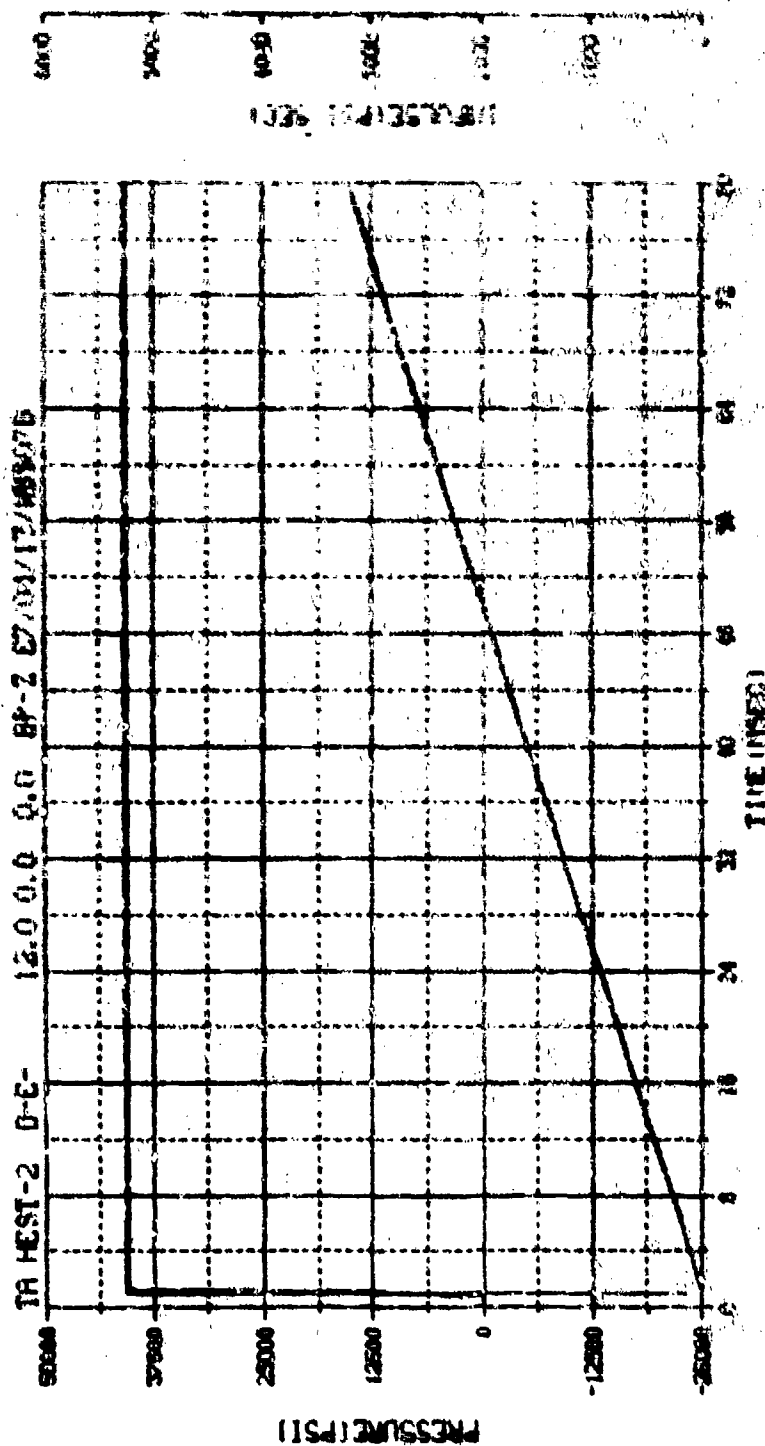
M.N. - 7	E.U. -0.000, 6577.100	VSN-
TSKIP-15.110	DIGITS-0.000, 297.000	TAPE22
S.R. -100.00 KHZ	9 00 AM, 29 MAR 78.	FILE-68



H.N. - 7  
 TSKIP-15.110  
 S.R. -100.00 KHZ  
 E.U. -0.000,6577,000  
 DIGITS-0.000,297,000  
 9 00 AM, 29 MAR 78.  
 YSN-  
 TWE22  
 FILE-00

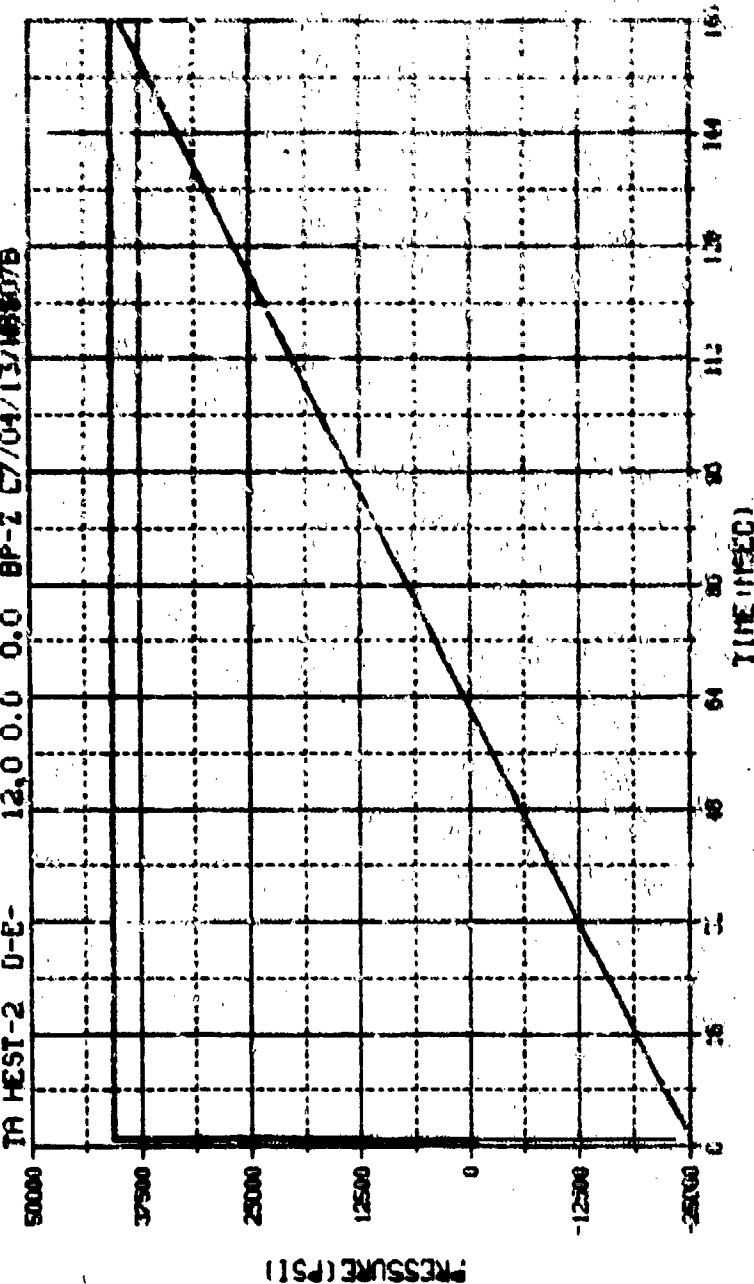


N.N. = 7 E.U. -0.001, 0.001, 0.001 VGN-  
 TSK IP-15.110 DIGITS-0.001, 0.001, 0.001 TIME 22  
 S.R. -100.00 KHZ 10 04 PM, 25 MAR '66 FILE-06

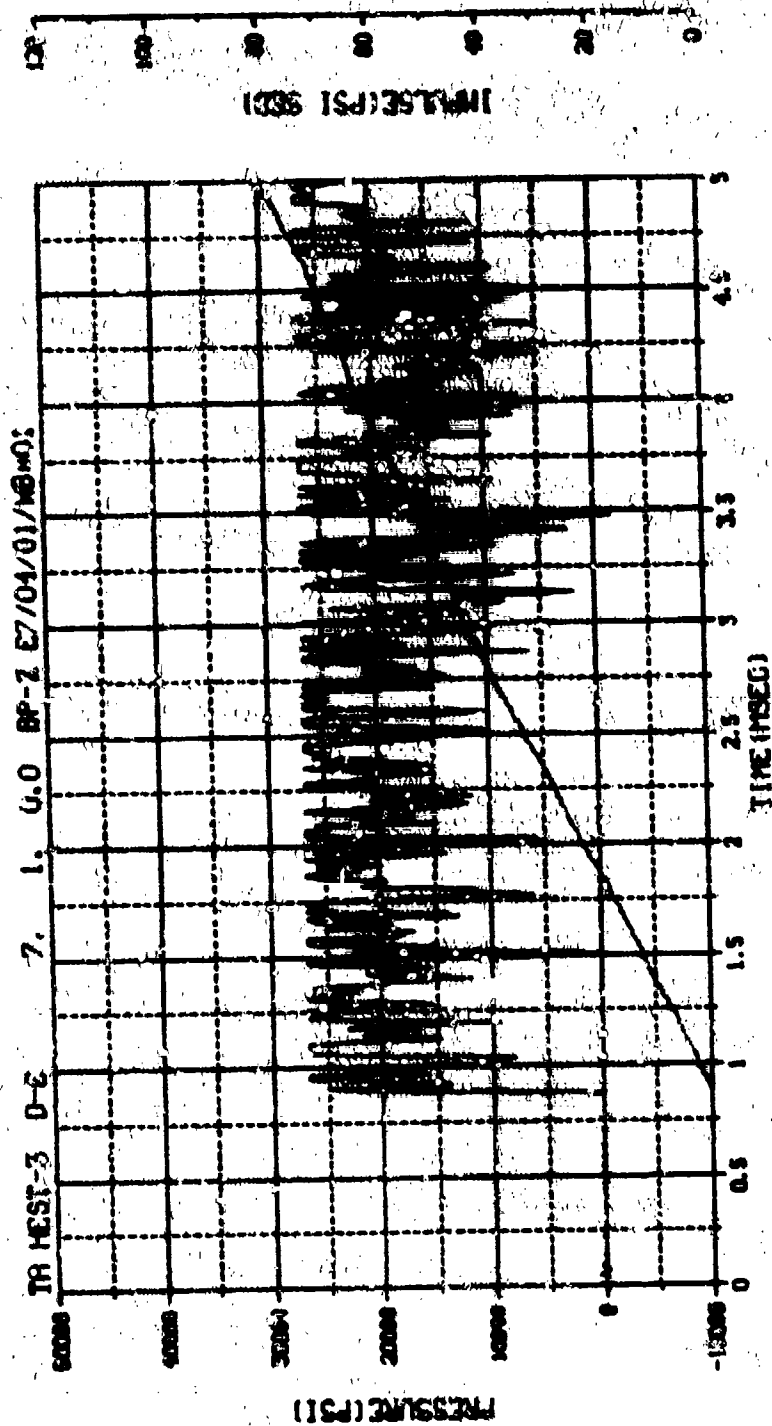


M.N. 7	E.U. -0.000, 6572.100	VSM-
TSKIP-15.110	DIGITS-0.000, 517.000	TIME 22
S.R. -100.00 KMZ	10 04 PM, 13 MAR 76	FILE-65

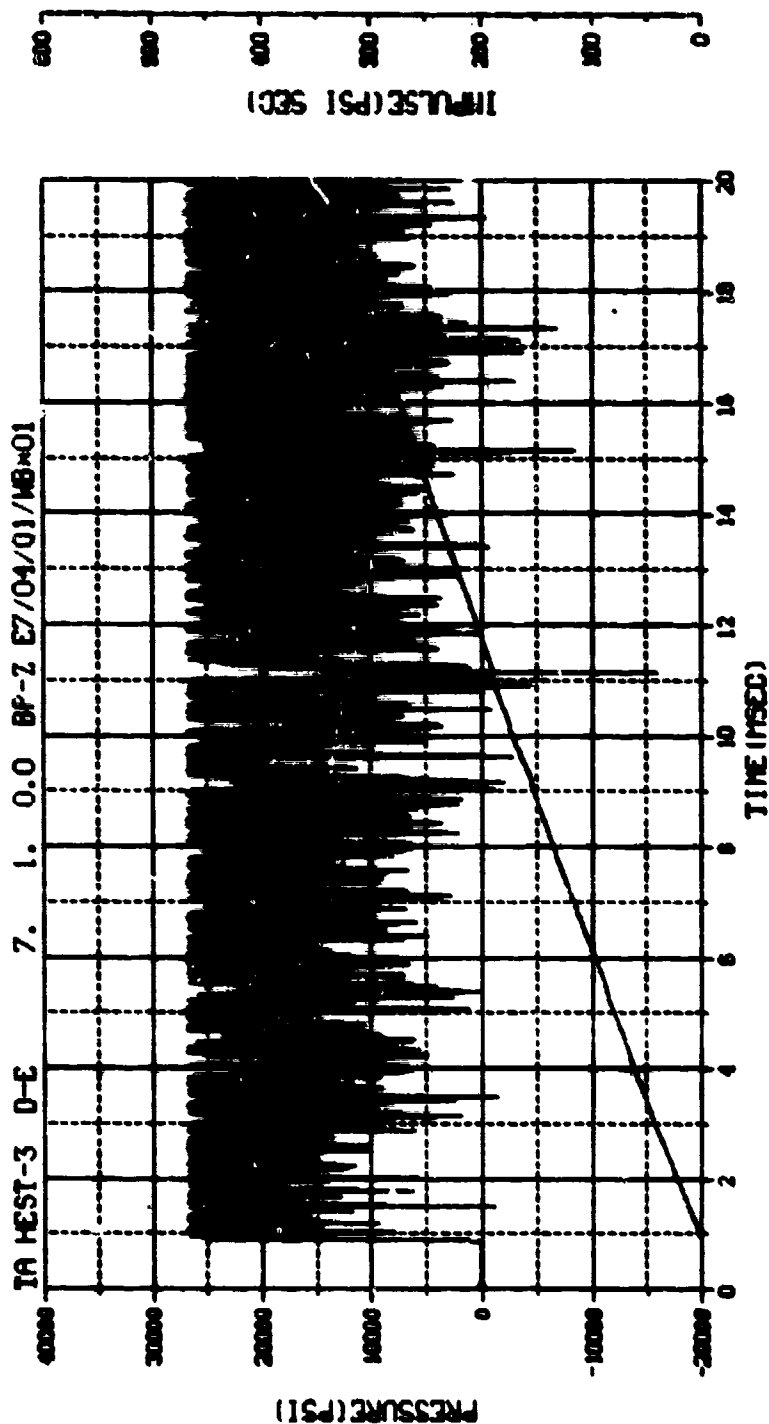
TA HEST-2 0-E- 12.0 0.0 0.0 BP-Z 07/04/13/188076



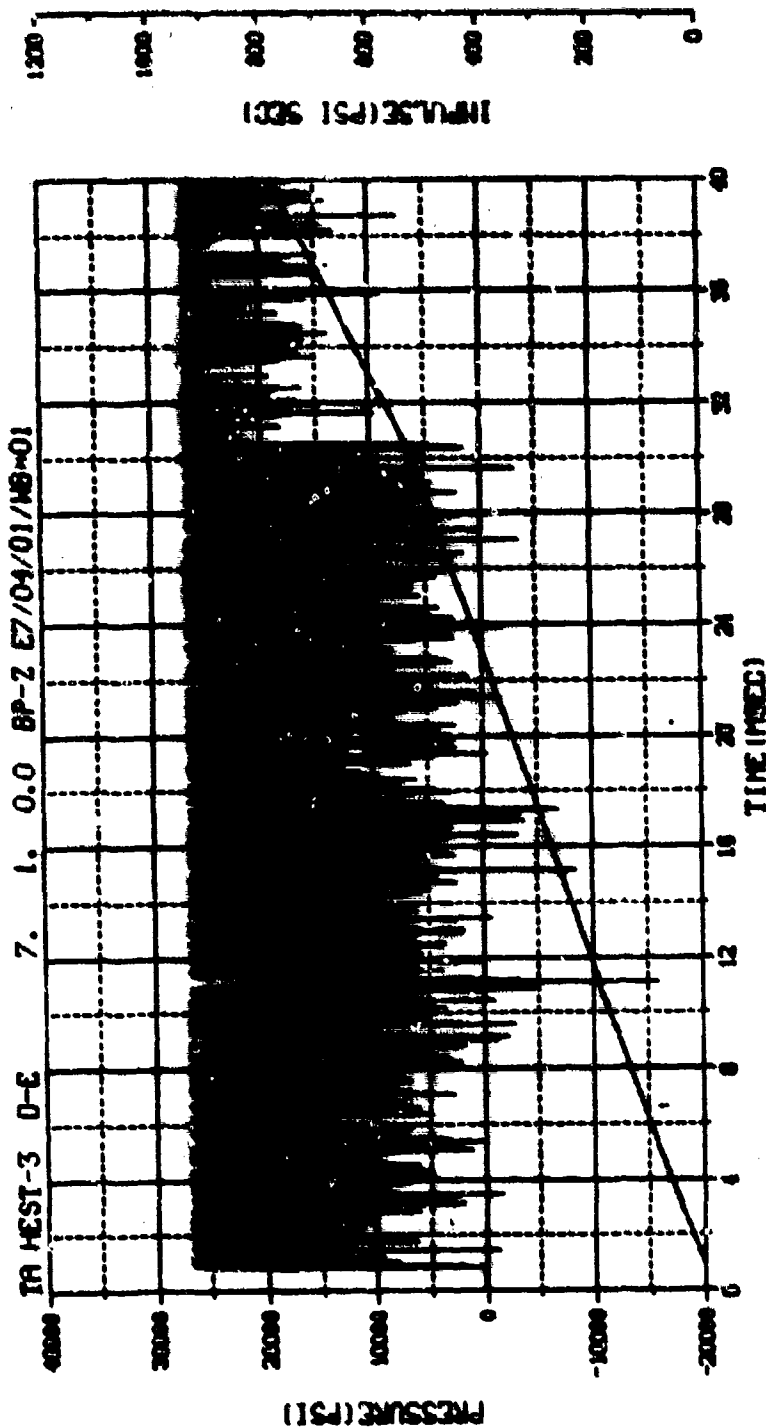
M.N. - 7  
 TSKIP-15.110  
 S.R. -160.00 KHZ  
 E.U. -0.000, 0.000, 0.000  
 DIGIT-0.000, 0.000, 0.000  
 BP 01 PM, 26 MAR 73  
 YSN-  
 TMT-  
 FILE-02



M.N. - 1	E.U. -0.000, 8755.000	VSN- ED23
79KIP-12.650	DIGITS-0.000, 611.500	TRPT22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-32

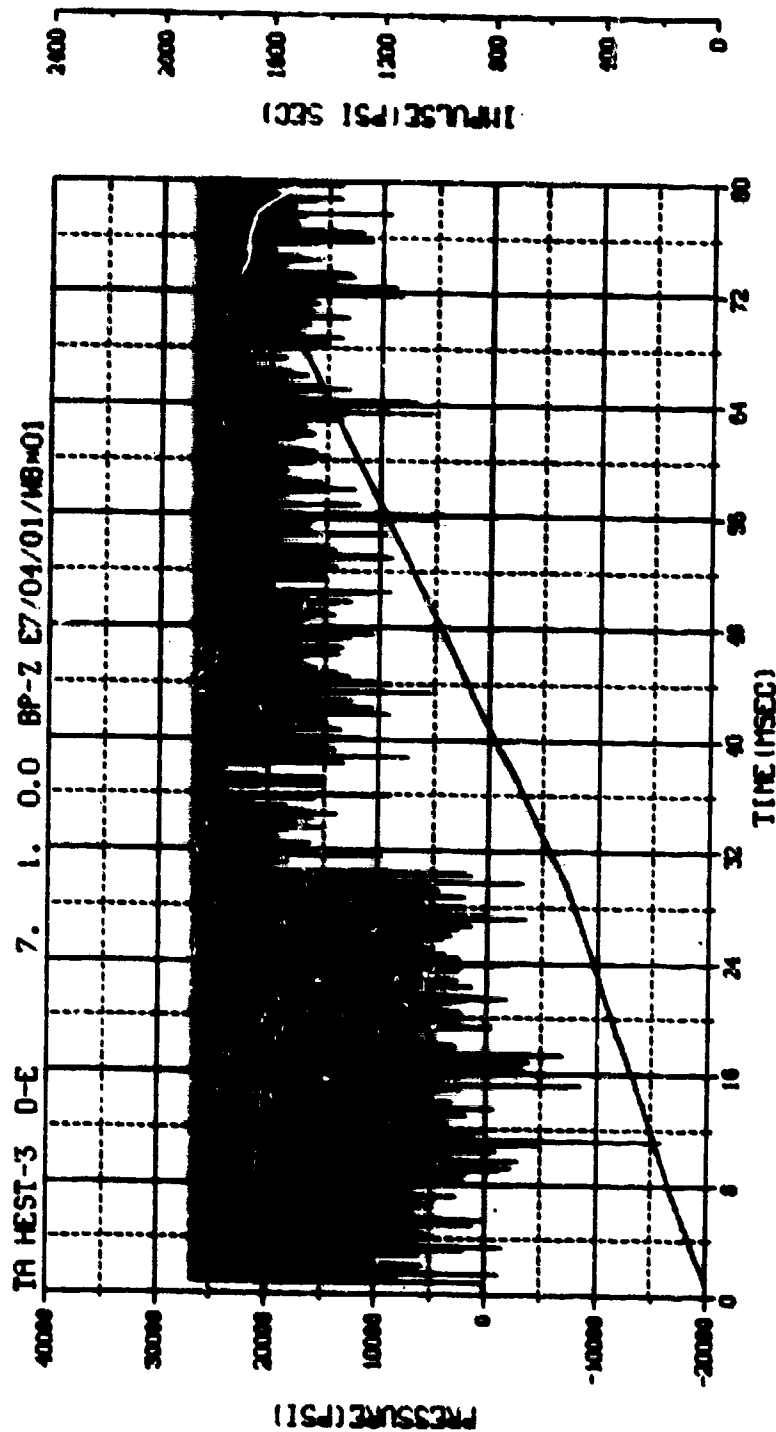


M.N. - 1	E.U. -0.000,8755.000	VSM- ED23
TSKIP-12.650	DIGITS-0.000,611.500	TAPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-32



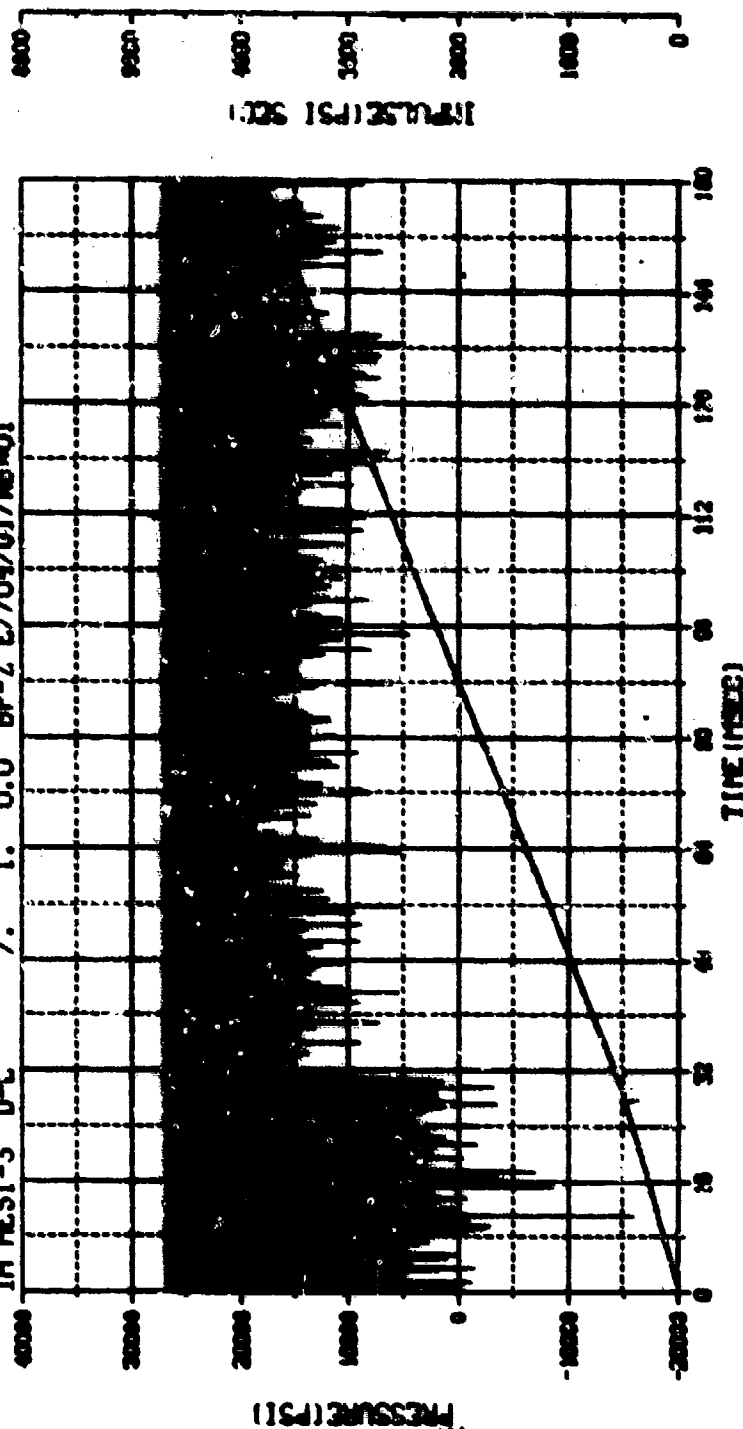
M.N. - 1	E.U. -0.000, 8755.000	VSM-
TSKIP-12.650	DIGITS-0.000, 611.500	TYPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-32



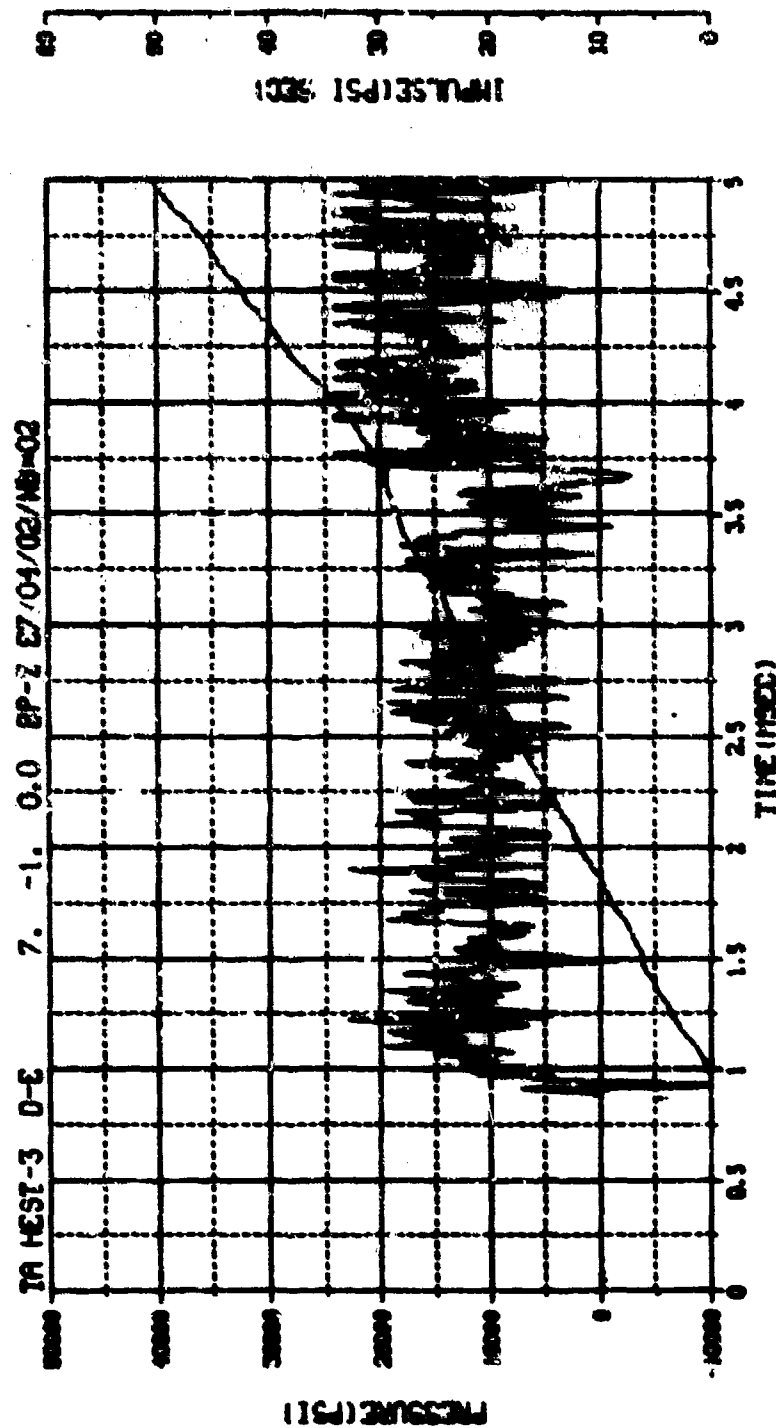


M.N. = 1	E.U. -0.000,8755.000	VSN-
TSKIP-12.650	DIGITS-0.000,611.500	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-32

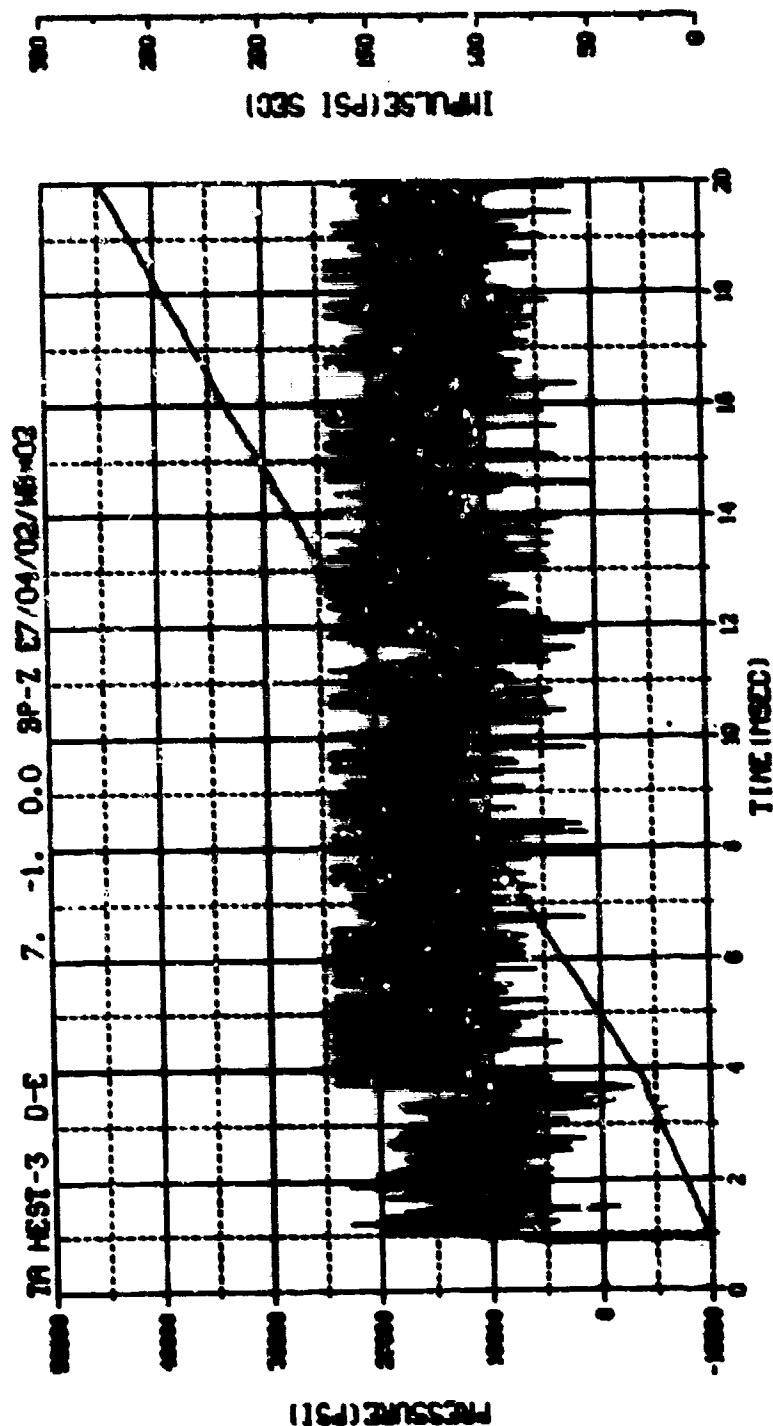
TA HEST-3 D-C 7. 1. 0.0 BP-Z E7/04/01/MB-01



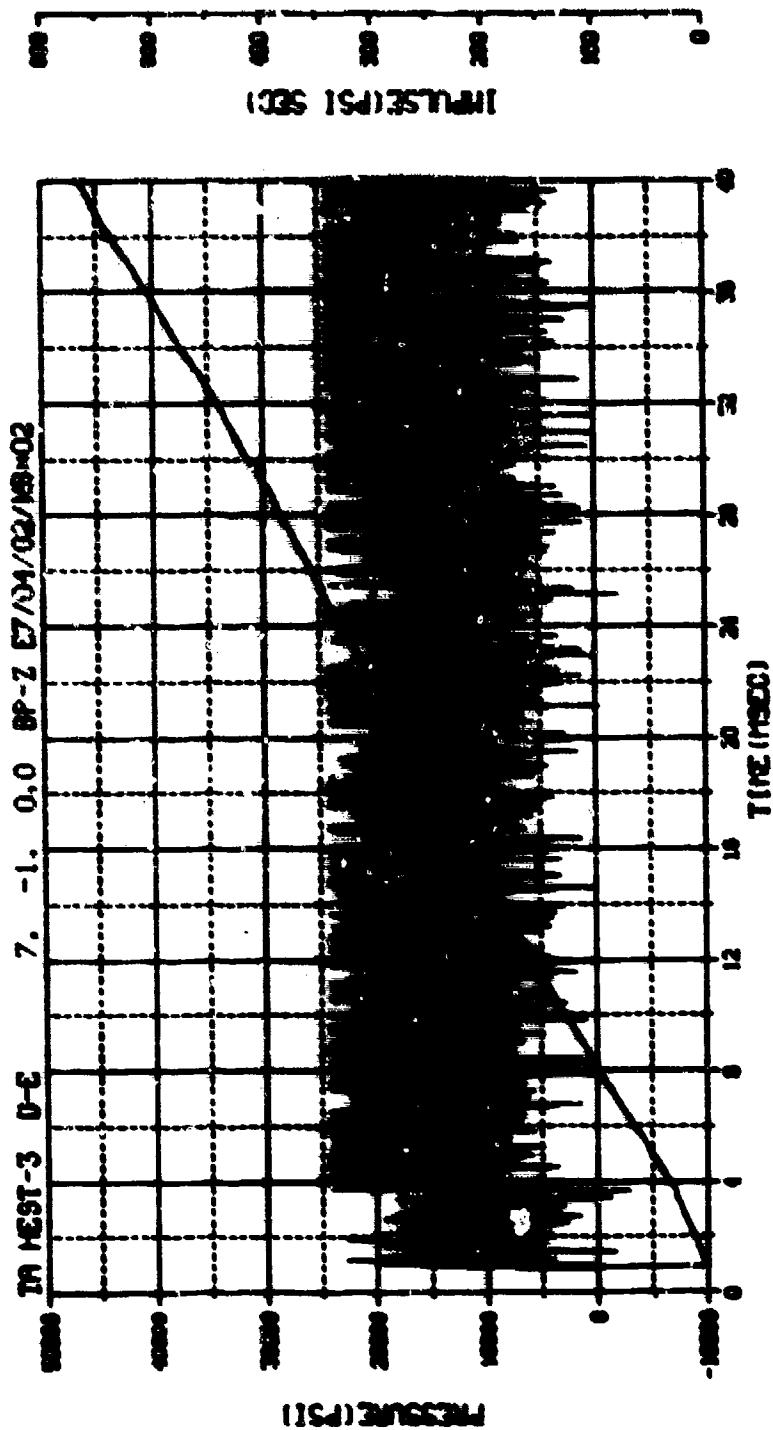
M.N. - 1	E.U. -0.000,8755.C00	VSN-
TSKIP-12.650	DIGITS-0.000,611.500	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-32



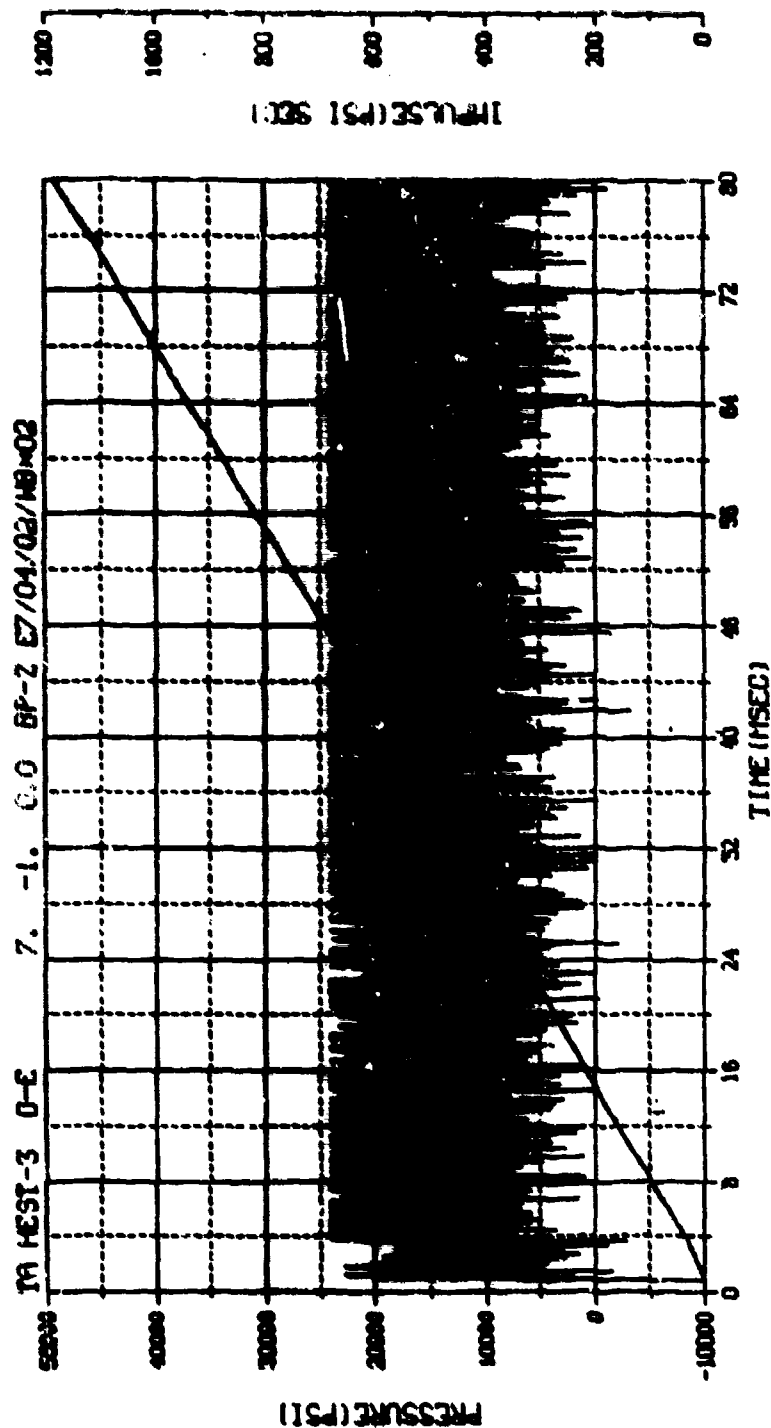
M.N. - 2	E.U. -0.000,8039.000	VSN- E023
TSKIP-12.650	DIGITS-0.000,598.125	TWPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 76.	FILE-34



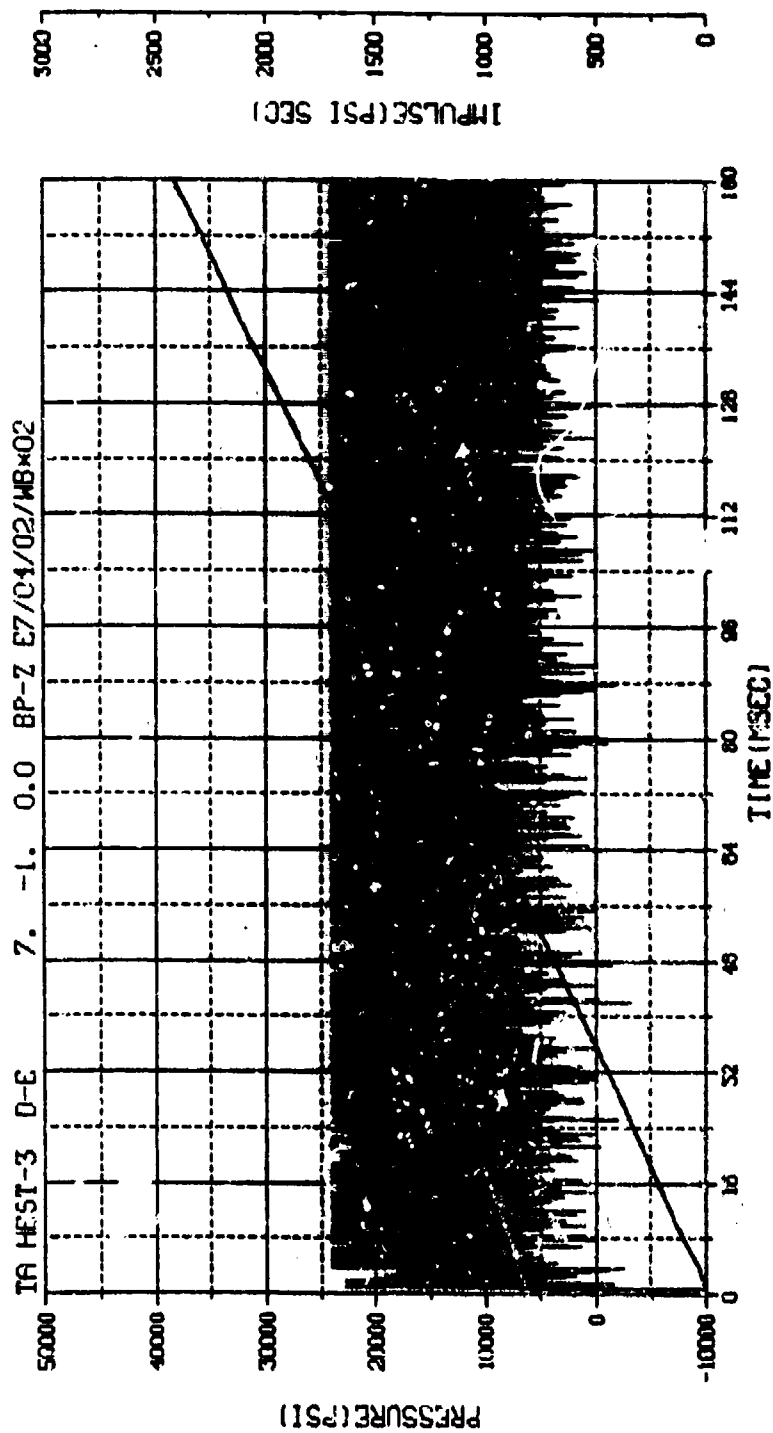
N.N. -	2	E.U. -0.000,8039.000	VSN- 0023
TSKIP-12.850		DIGITS-0.000,506.125	TIME22
S.R. -100.00 KHZ		11 36 AM, 2 MAY 78.	FILE-34



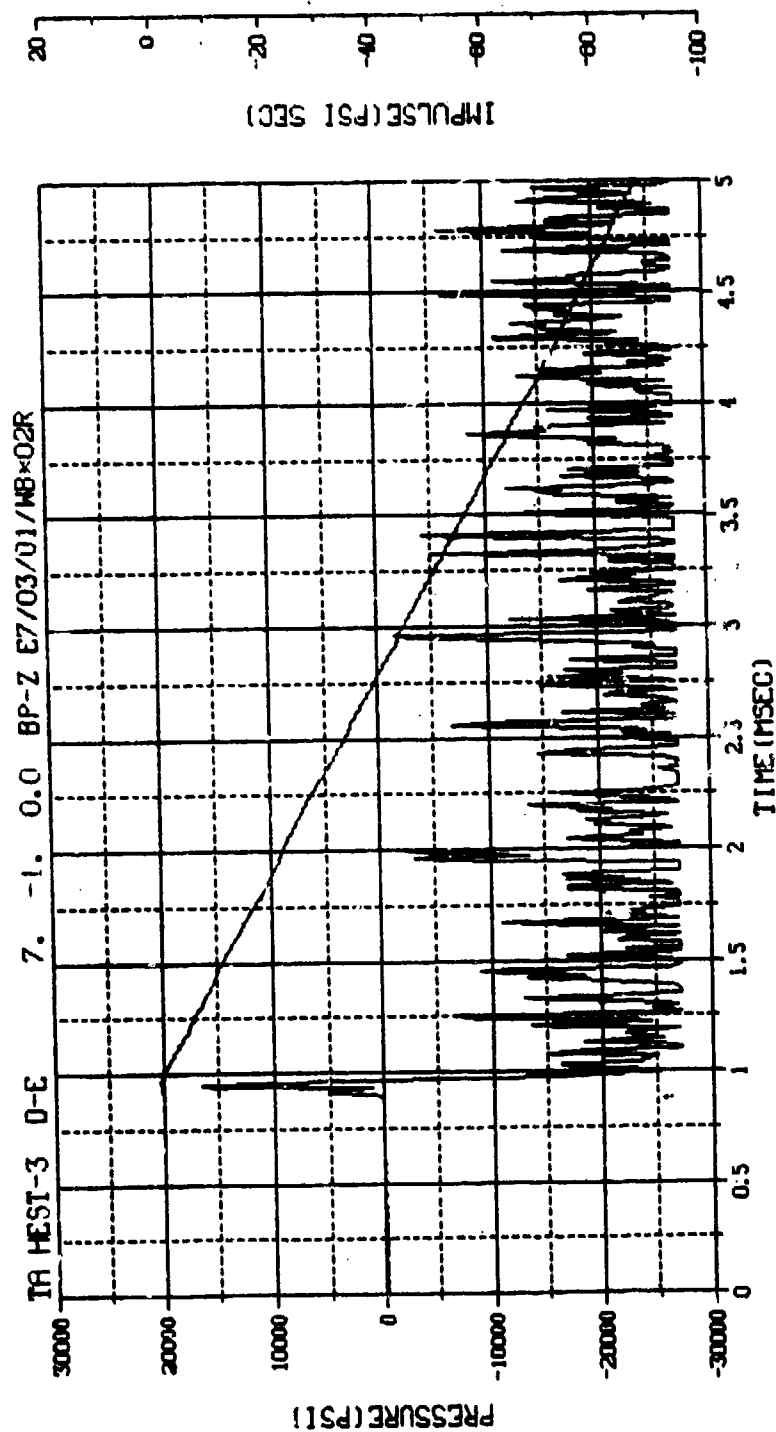
M.N. - 2	E.U. -0.000, 8039.000	VSN-
TSK(P-12.650	DIGITS-0.000, 598.125	TRPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 76.	FILE-34



M.N. - 2	E.U. -0.000,8039.000	VSN-
TSKIP-12.650	DIGITS-0.000,598.125	TAPE22
S.R. -100.00 KHZ	8 50 MW, 2 MAY 78.	FILE-54



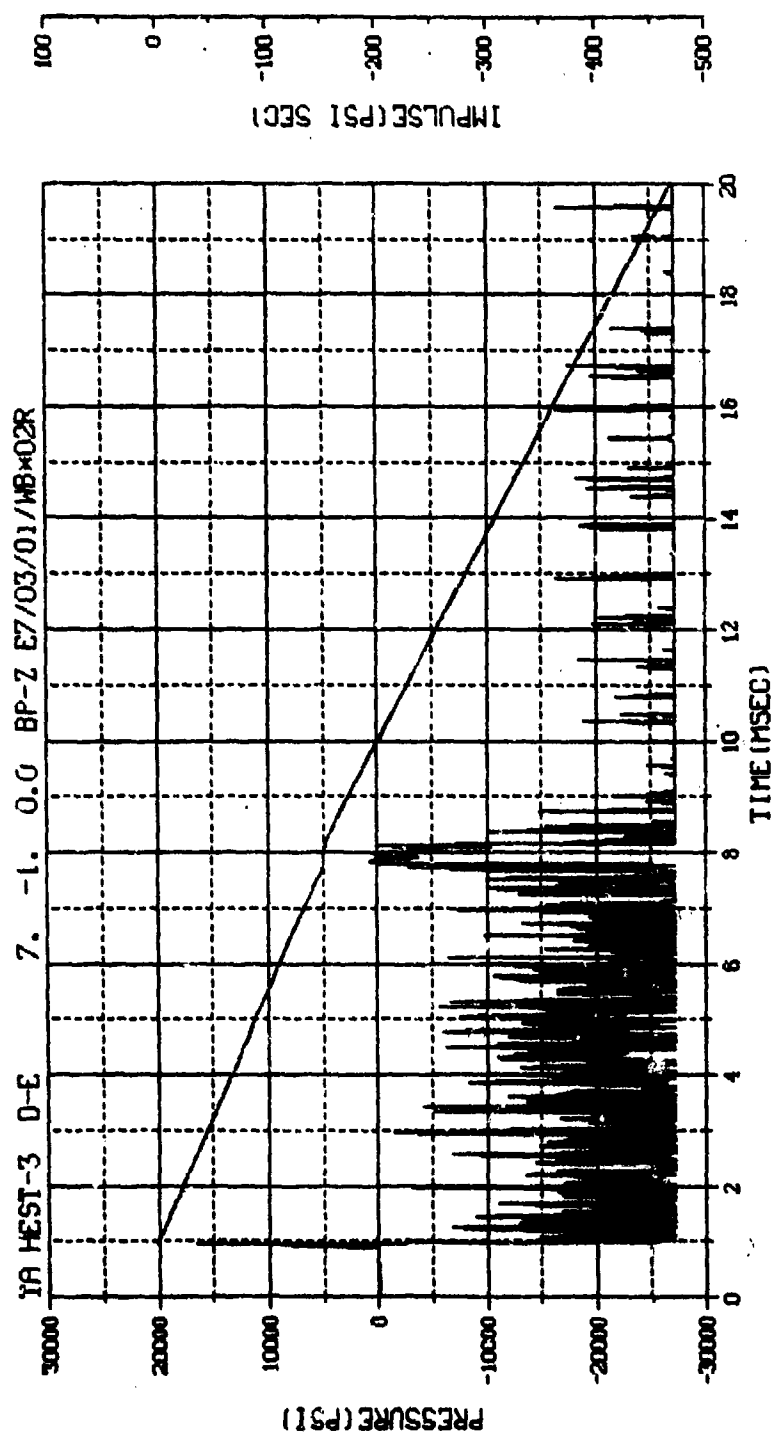
M.N. = 2	E.U. = -0.000,8039.000	VSN =
TSKIP = 12.650	DIGITS = 0.000,598.125	TAPE 22
S.R. = 100.00 KHZ	8 50 P 2 M 7 78.	FILE - 34



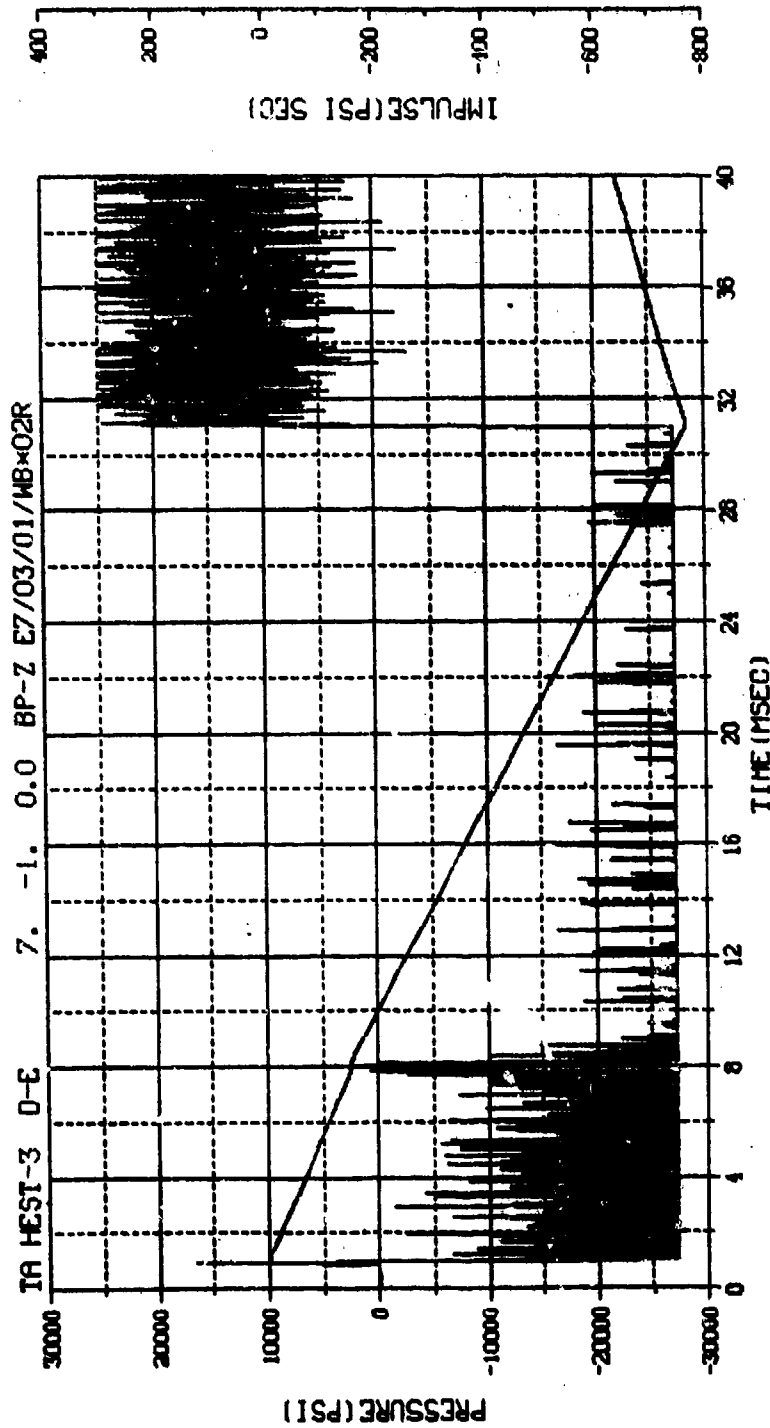
259

M.N. - 2	E.U. -0.030,8039.000	VSN-
TSKIP-12.640	DIGITS-0.000,605.375	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY '78.	FILE-22

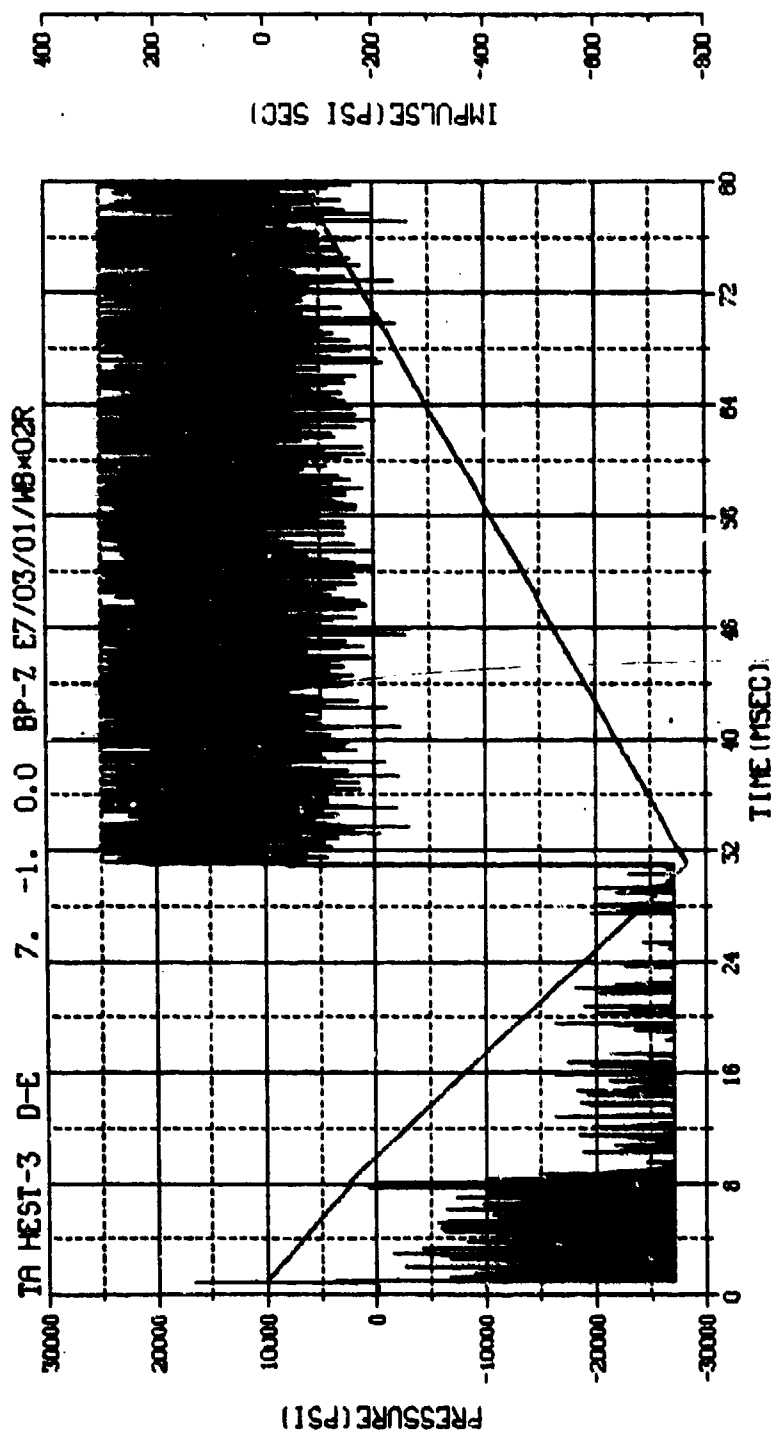




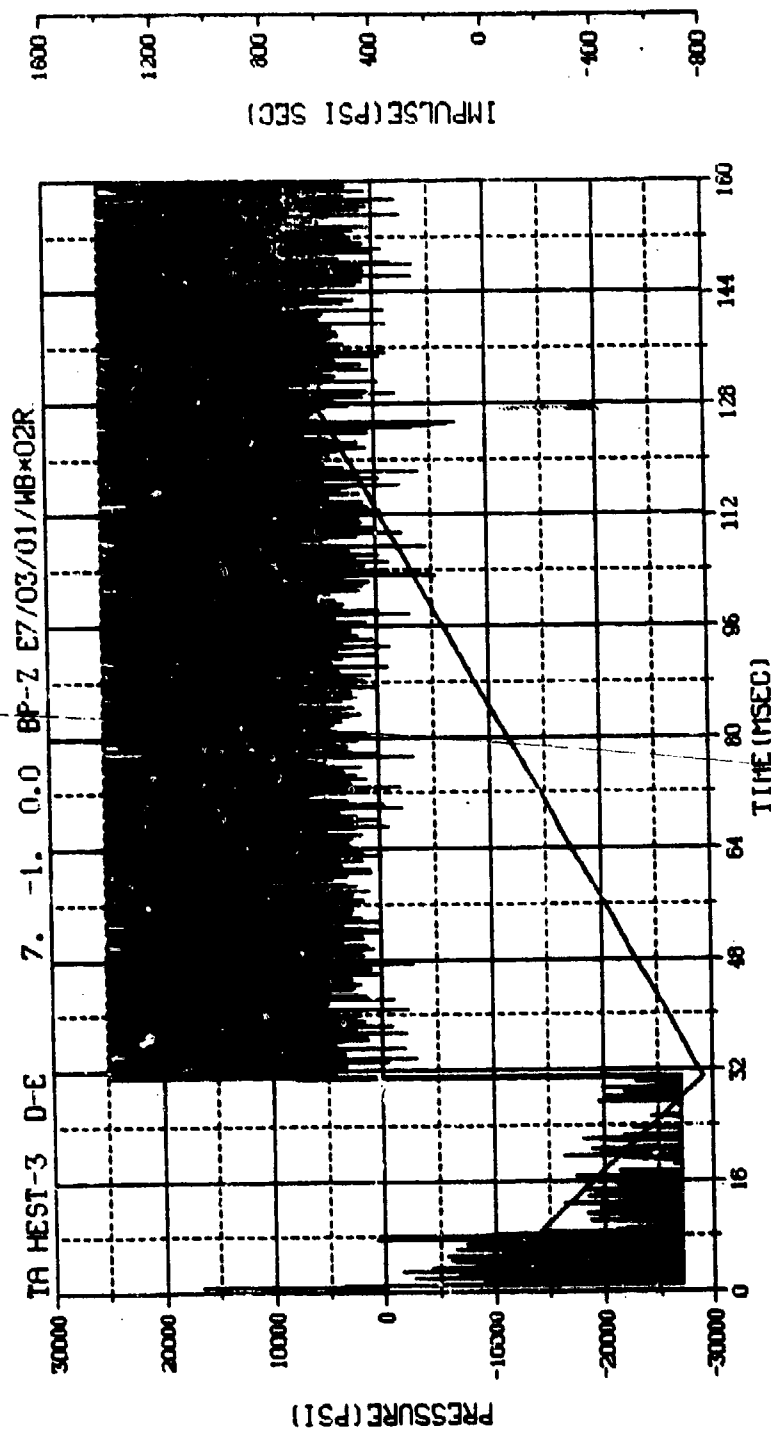
M.N. = 2	E.U. -0.000,8039.000	YSN=
TSKIP=12.640	DIGITS-0.000,605.375	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-22



M.N. - 2	E.U. -0.000,8039.000	VSN-
TSKIP-12.640	DIGITS-0.000,605.375	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-22

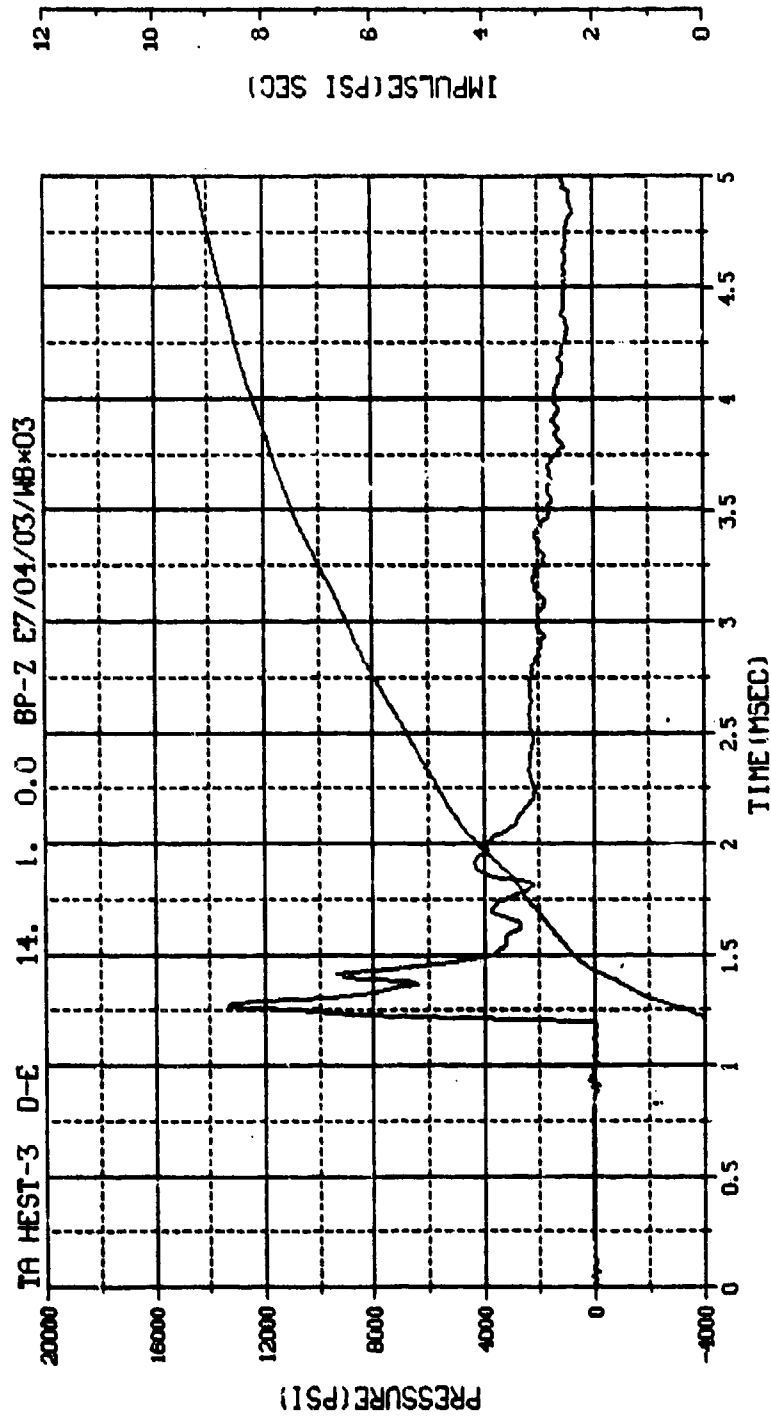


M.N. = 2	E.U. -0.000,8039.000	VSN-
TSKIP-12.640	DIGITS-0.000,605.375	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-22



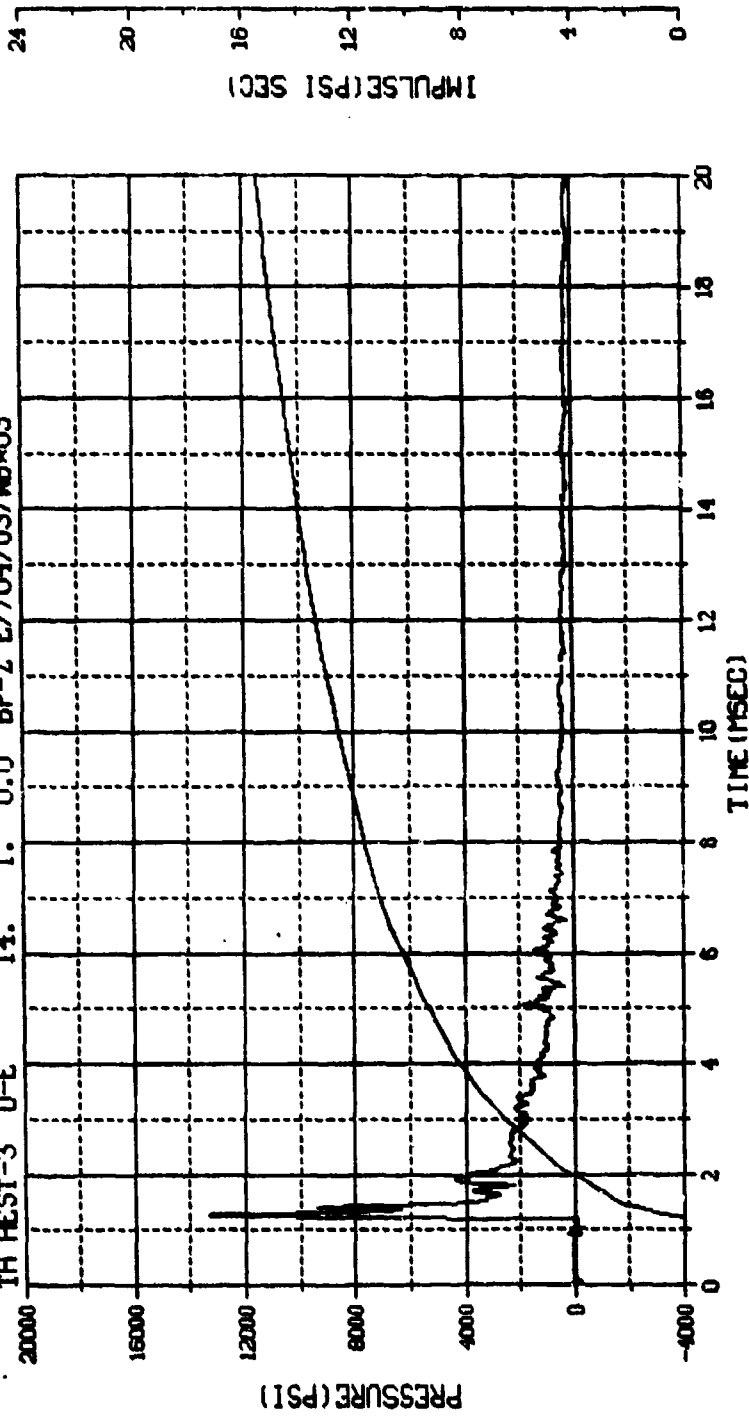
263

M.N. - 2	E.U. -0.000,8039.000	VSN-
TSKIP-12.640	DIGITS-0.000,605.375	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-22

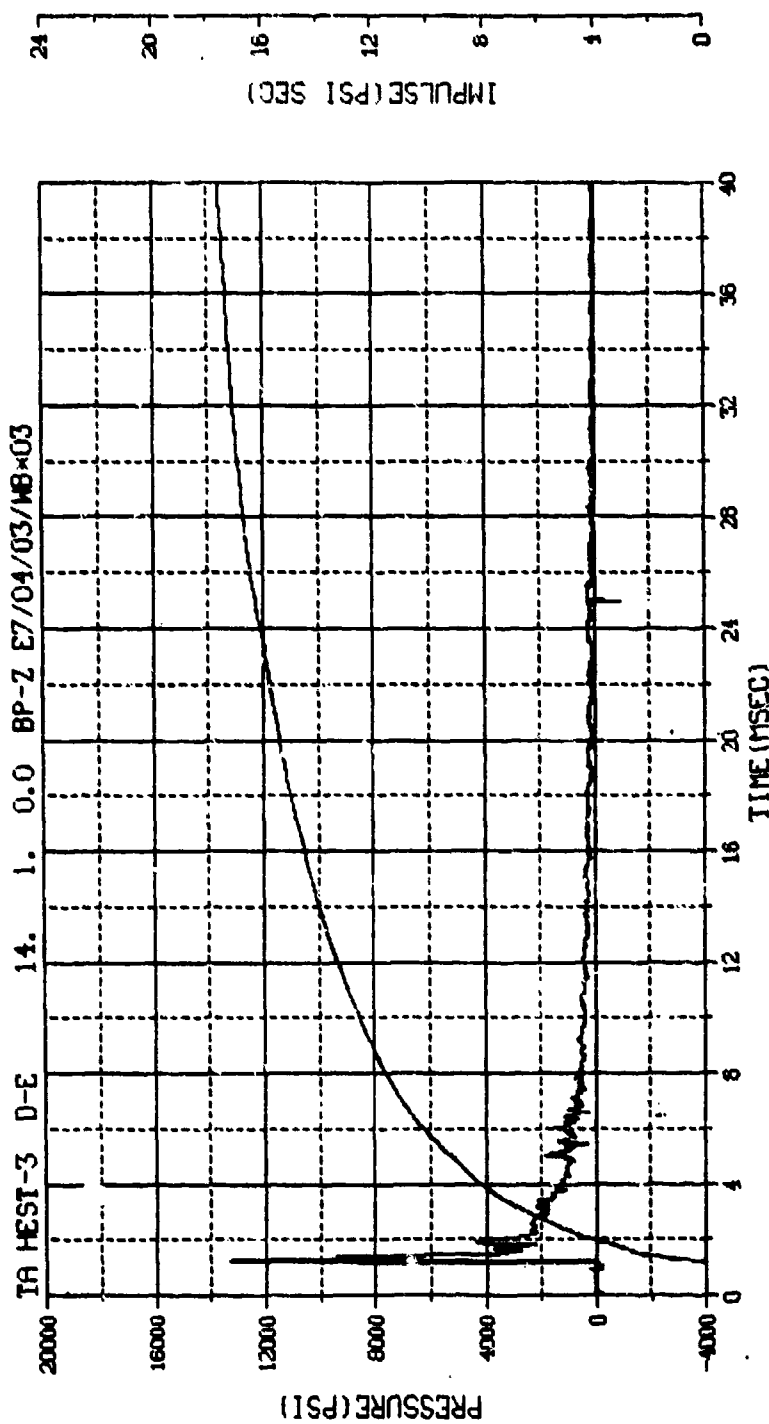


M.N. - 3	E.U. -0.000,7820.000	VSN- ED23
TSKIP-12.650	DIGITS-0.000,746.875	TAPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-36

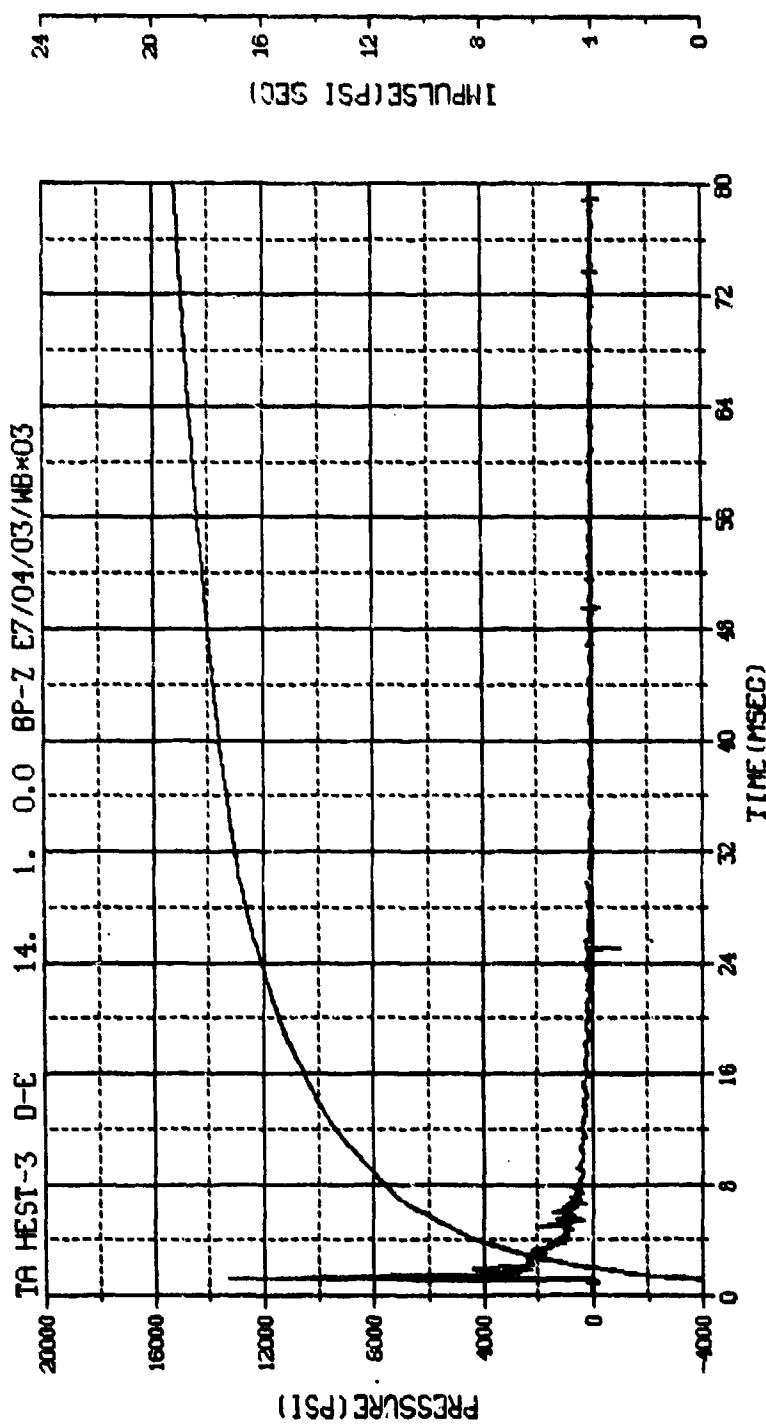
TA HEST-3 D-E 14. 1. 0.0 BP-Z E7/04/03/WB\*03



M.N. - 3	E.U. -0.000,7820.000	VSN- ED23
TSKIP-12.650	DIGITS-0.000,746.875	TAPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-36

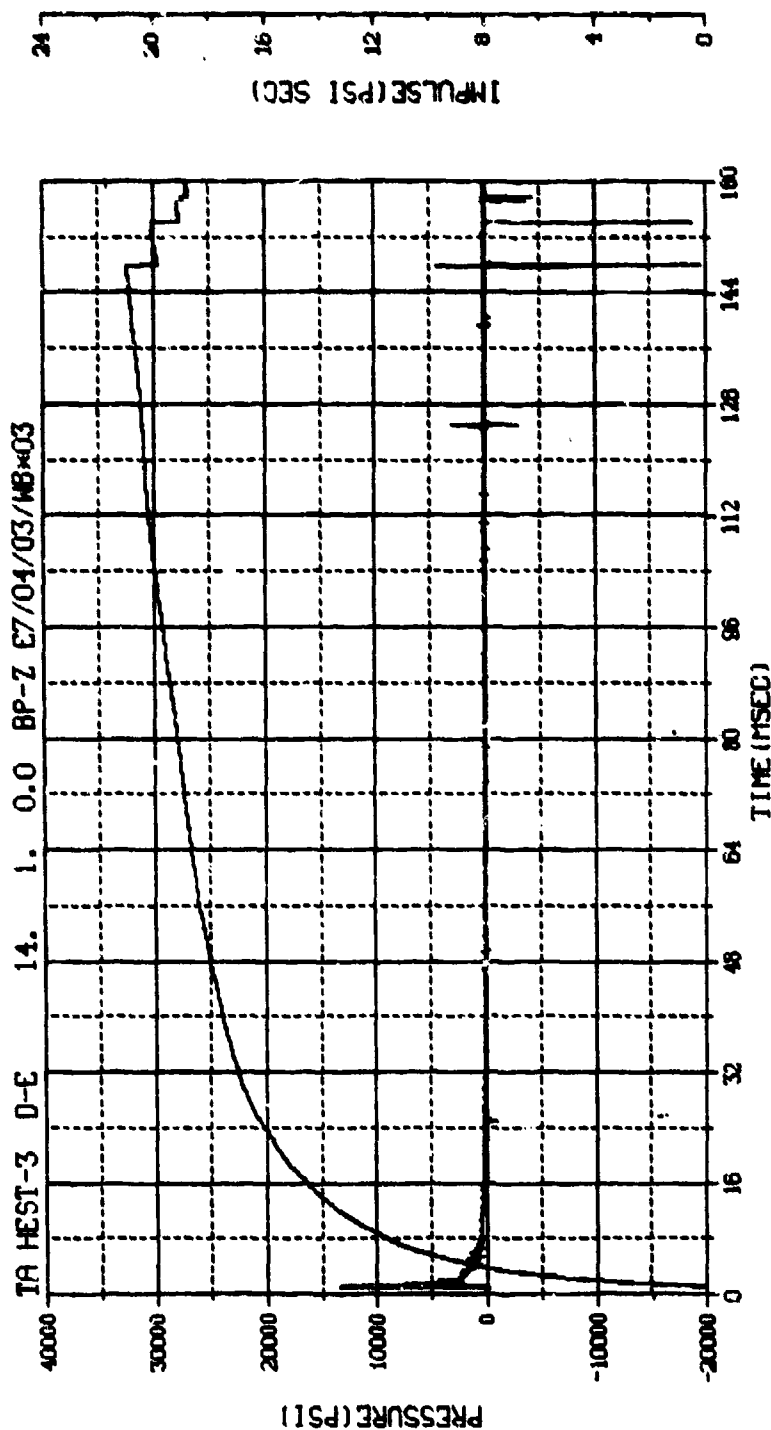


M.N. - 3	E.U. -0.000,7820.000	VSN-
Tsk IP-12.650	DIGITS-0.000,746.975	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-36

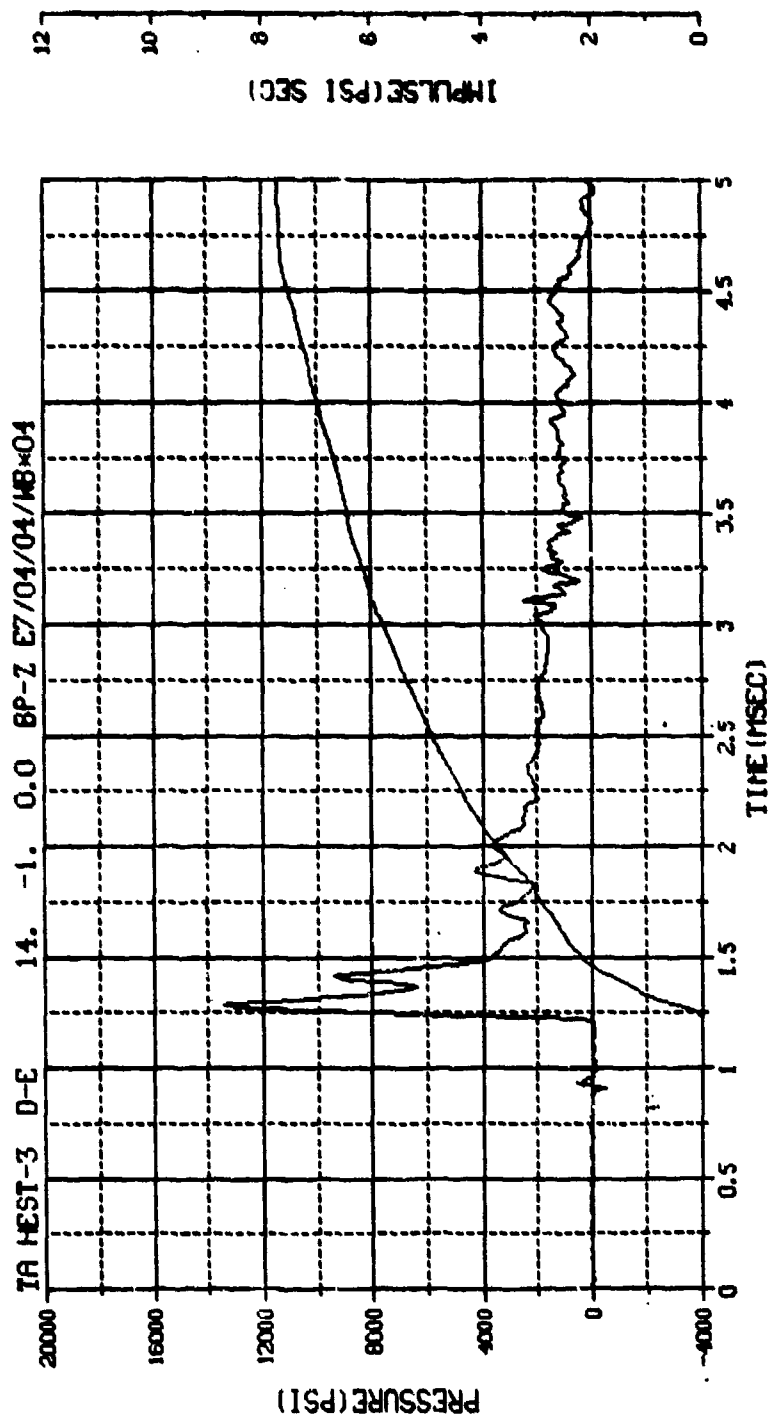


M.N. - 3	E.U. -0.000,7820.000	VSN-
TSKIP-12.650	DIGITS-0.000,746.875	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-36

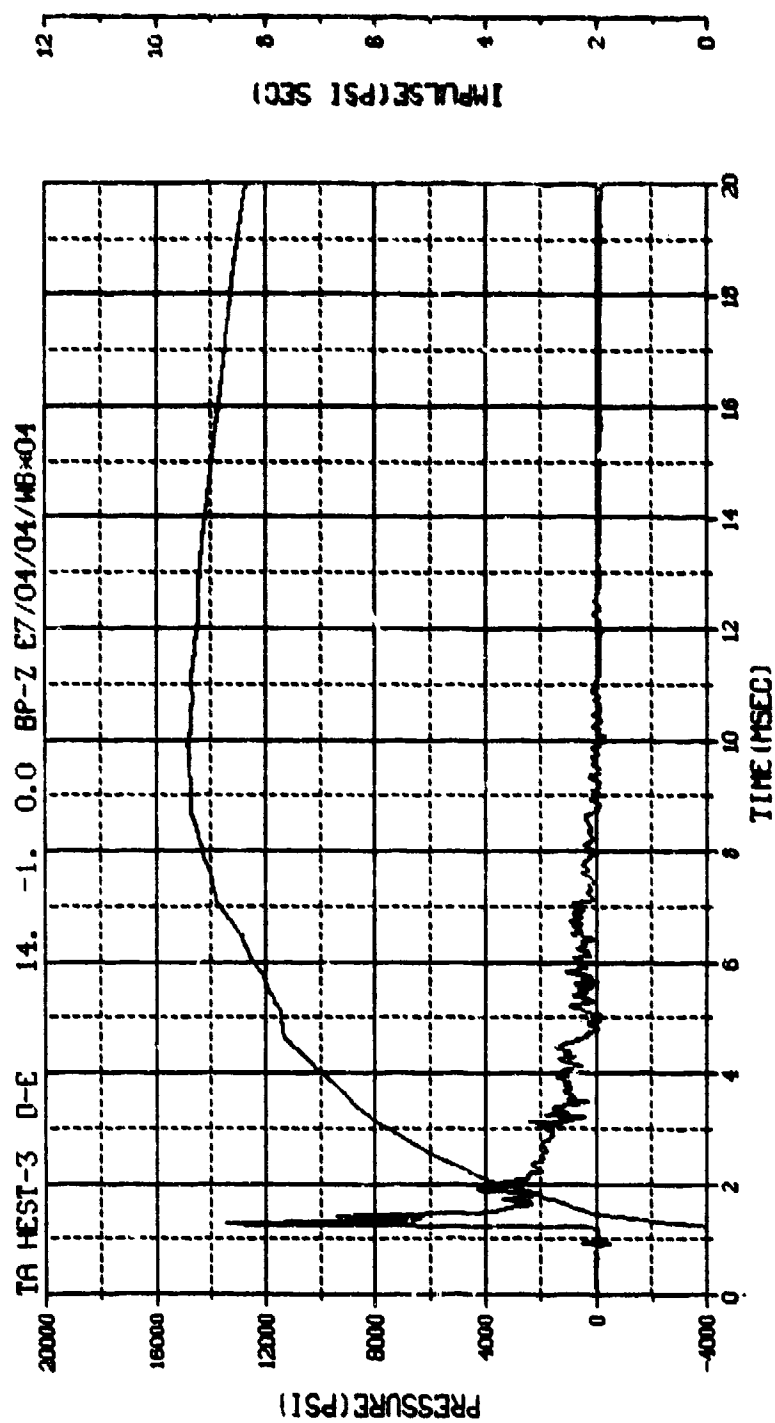




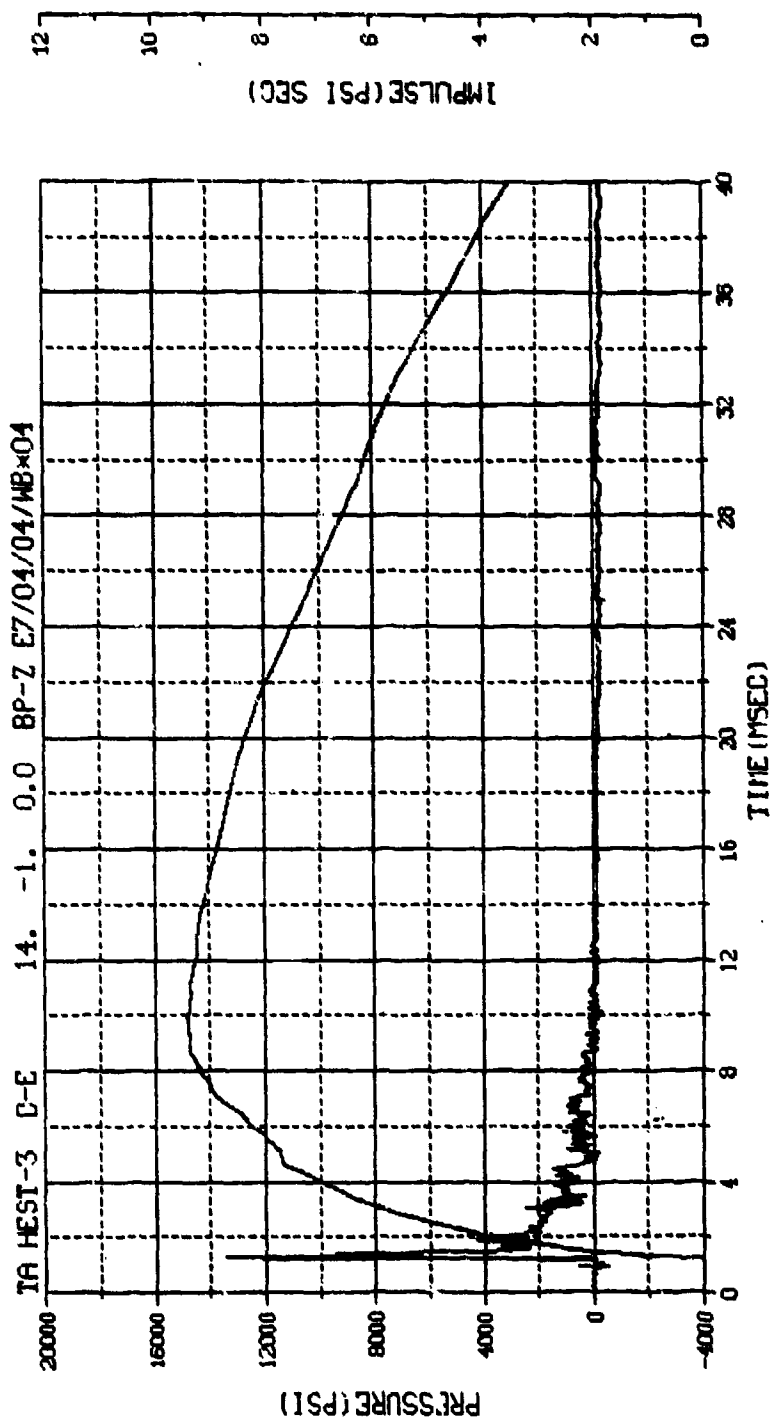
M.N. - 3	E.U. -0.000,7820.000	VSN-
TSKIP-12.650	DIGITS-0.000,746.875	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-36



M.N. - 4	E.U. -0.000,9265.000	VSN- ED23
TSKIP-12.650	DIGITS-0.000,692.000	TAPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-38
		1

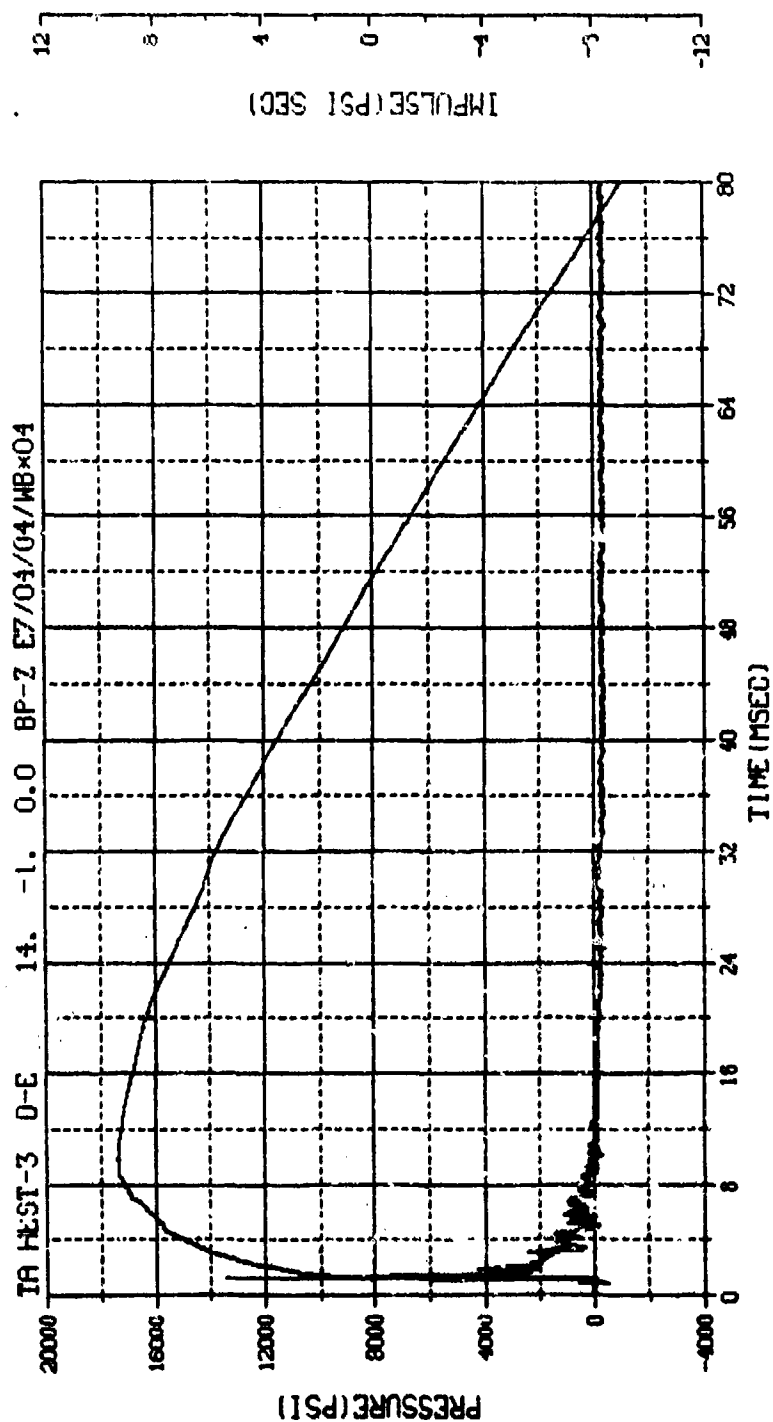


M.N. = 4	E.U. -0.000, 9265.000	YSN- ED23
TSKIP-12.650	DIGITS-0.000, 692.000	TAPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-38



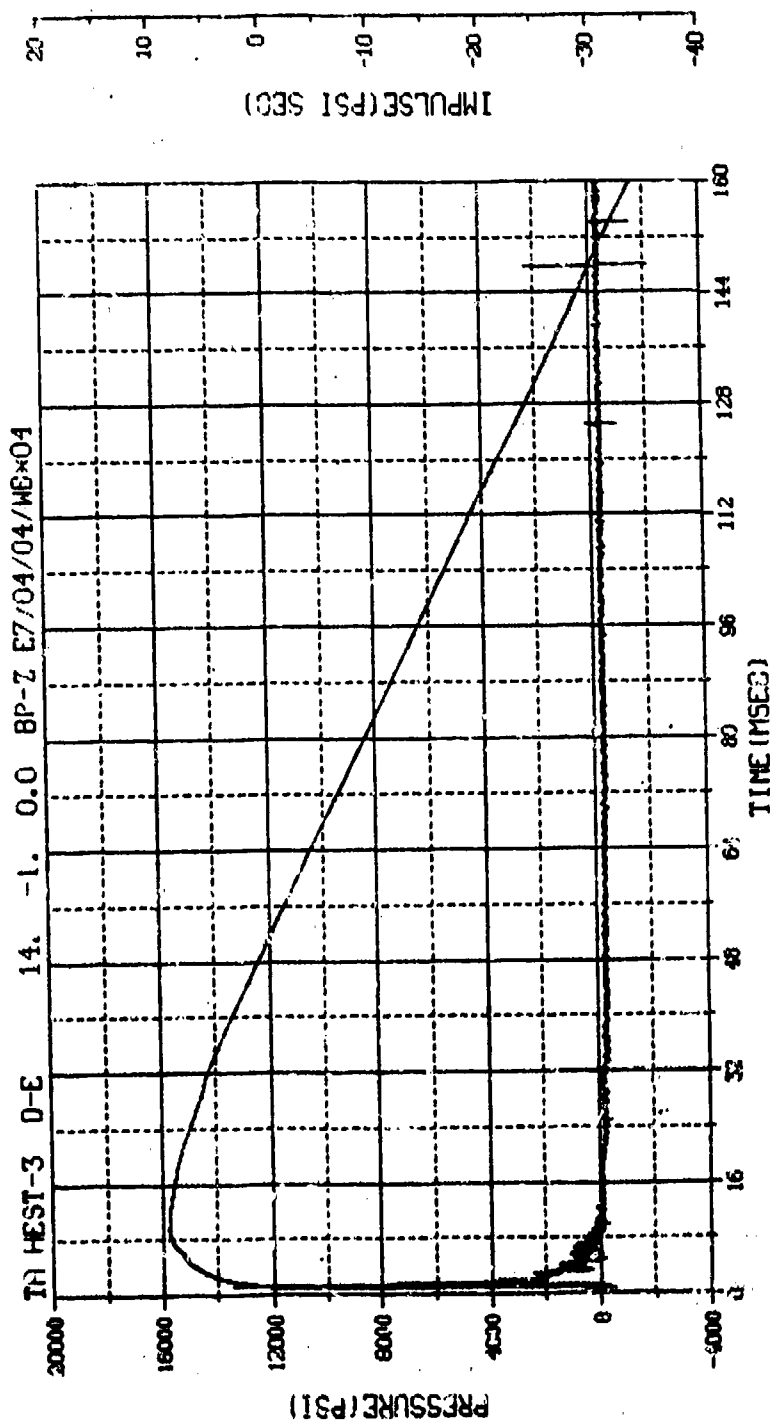
271

M.N. - 4	E.U. -0.000,9265.000	VSN-
TSKIP-12.650	DIGIT3-0.000,692.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-38



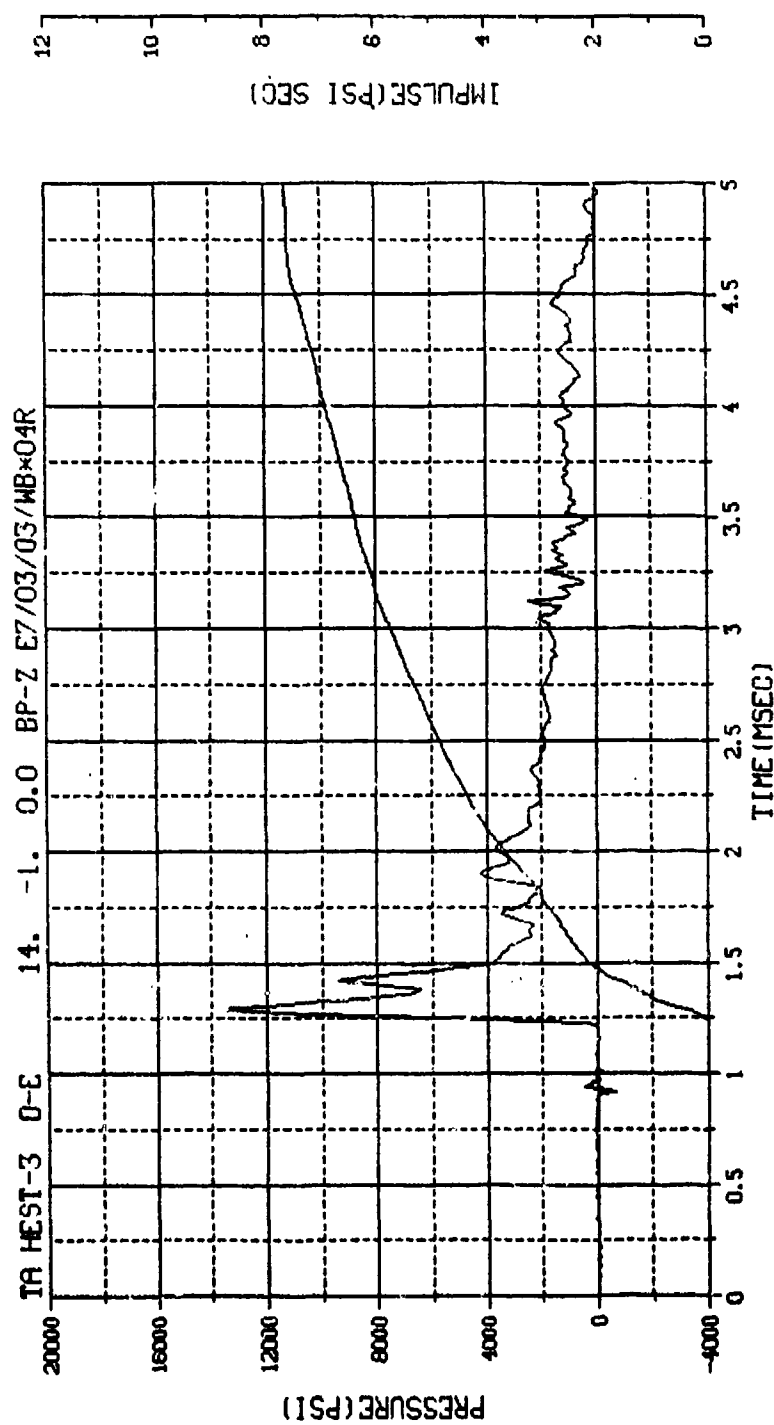
272

M.N. - 4	E.U. -0.000,9265.000	VSN=
TSK(P-12.650	DIGITS-0.000,692.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-38

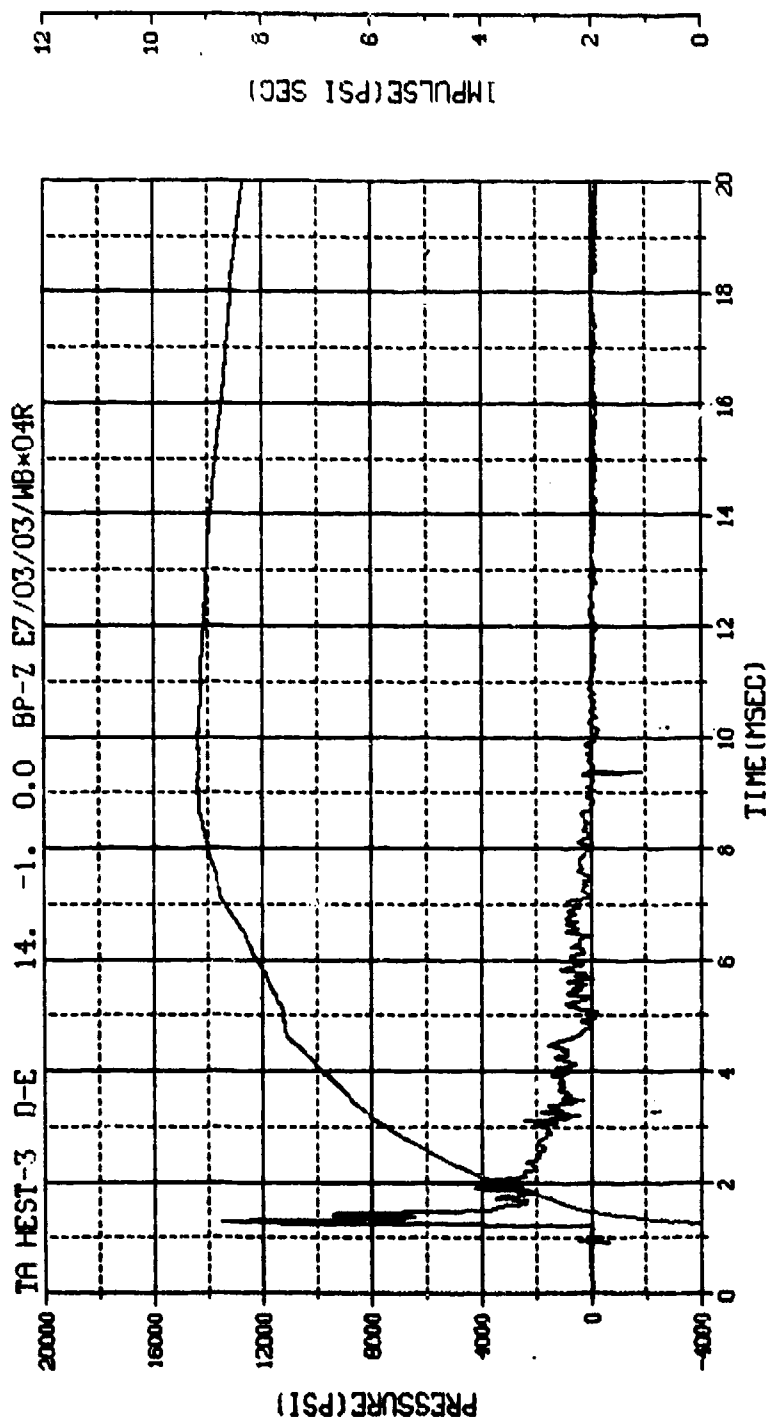


273

M.N. - 4	E.U. -0.000,9265.000	VSN-
TSKIP-12.650	DIGITS-0.000,692.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-33

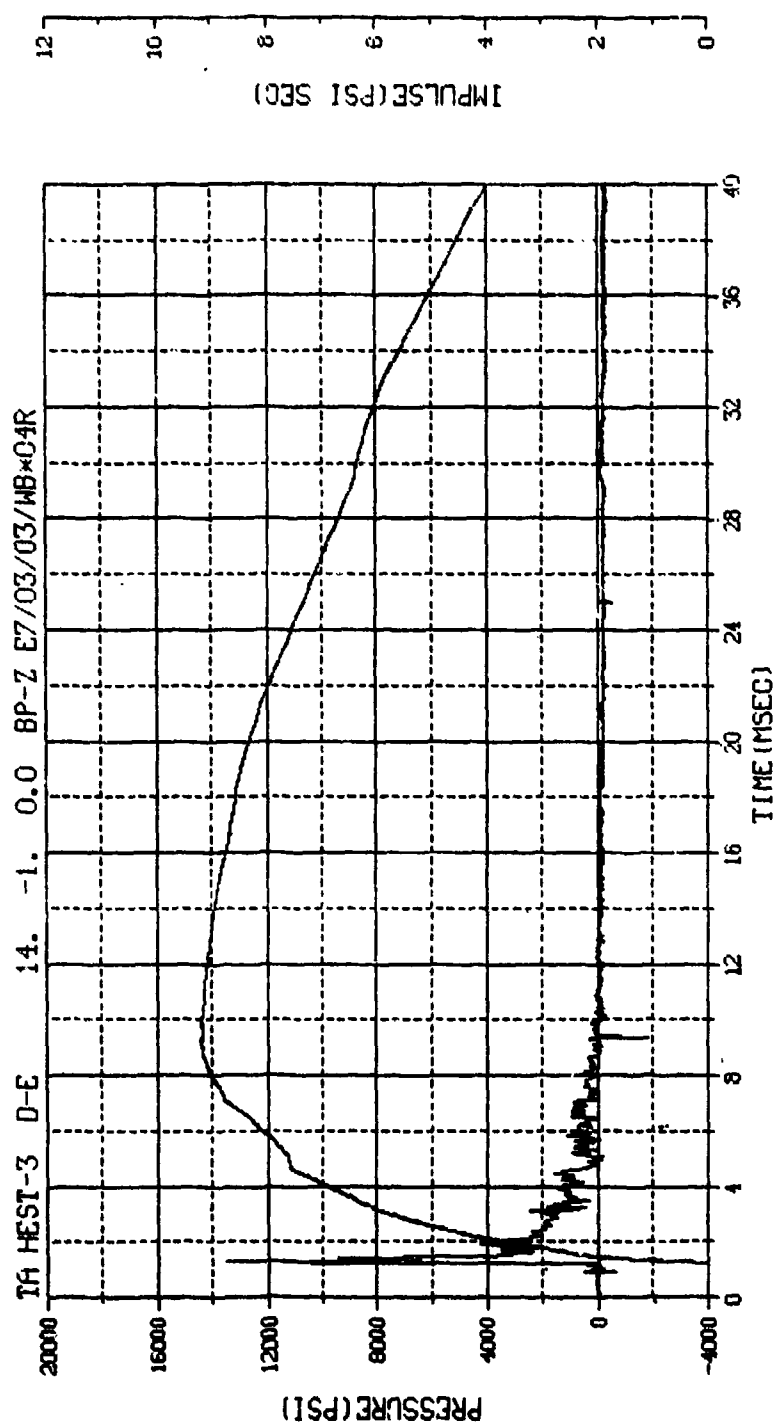


M.N. - 4	E.U. -0.000,9265.000	VSN-
TSKIP-12.640	DIGITS-0.000,680.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-24

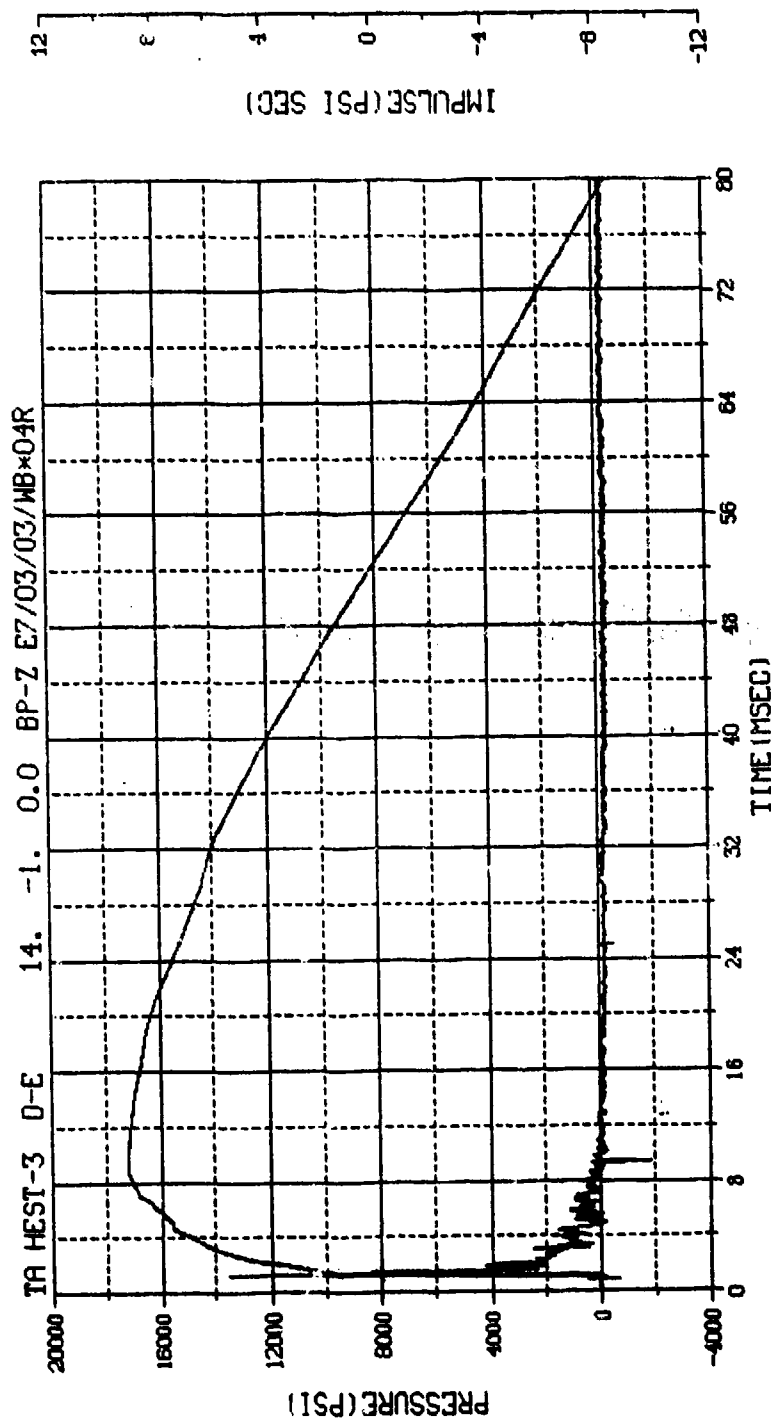


M.N. - 4	E.U. -0.000,9265.000	VSN-
TSKIP-12.640	DIGITS-0.000,680.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-24





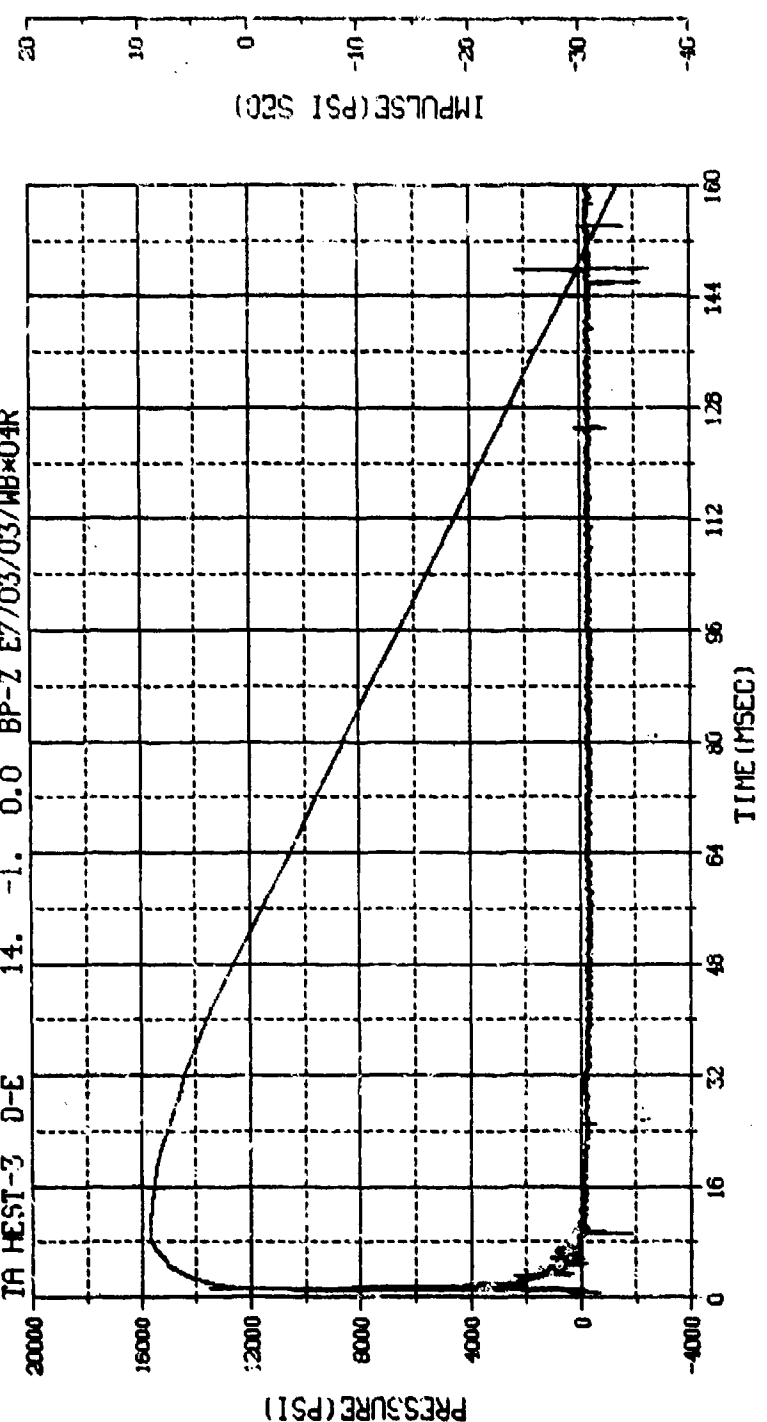
M.N. = 4	E.U. = -0.000,9265,000	VSN =
TSKIP = 12.640	DIGITS = 0.000,680,000	TAPE 22
S.R. = 100.00 KHZ	8 50 AM, 2 MAY 78.	FILE = 24
		1



277

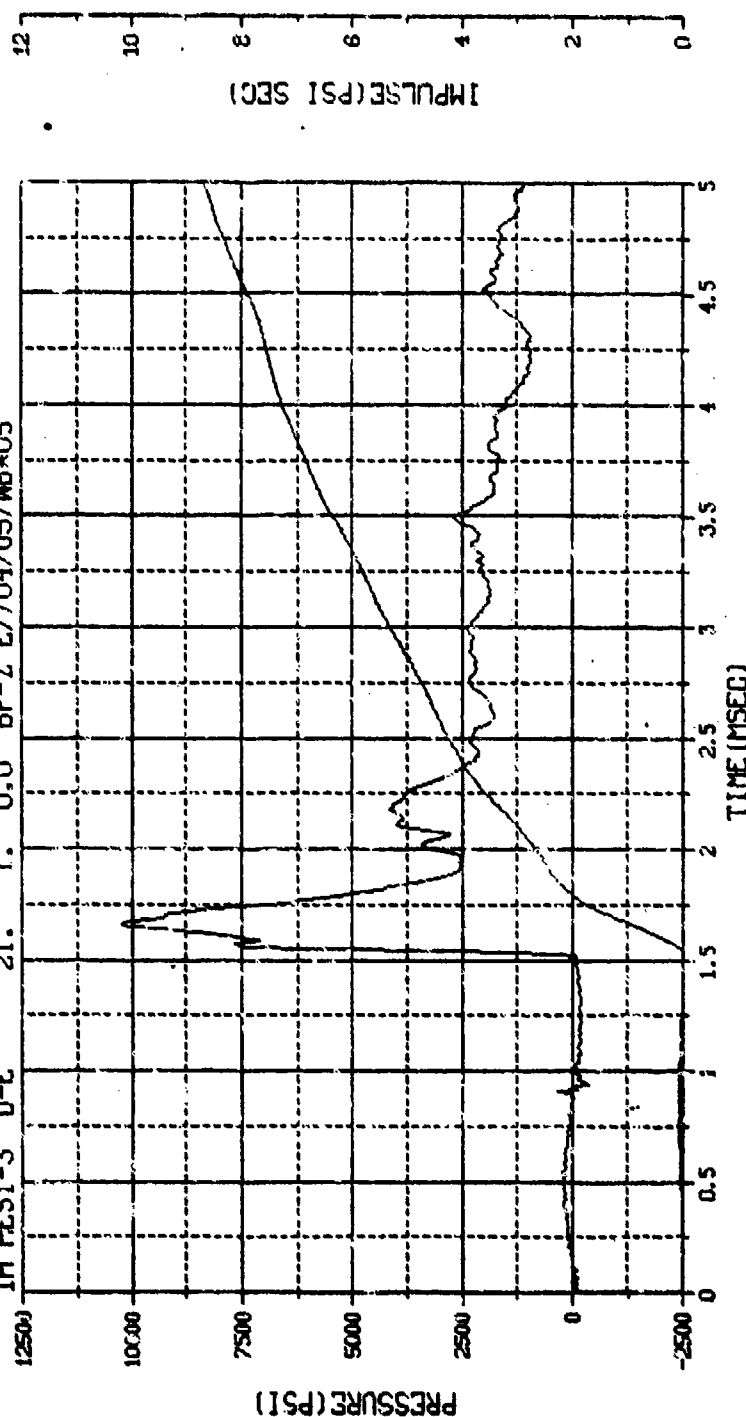
M.N. = 4	E.U. = 0.000, 9265.000	VSN =
TSKIP = 12.640	DIGITS = 0.000, 680.000	TAPE 22
S.R. = 100.00 KHZ	8 50 AM, 2 MAY 78.	FILE = 24

TA HEST-3 D-E 14. -1. 0.0 BP-Z E7/03/03/MB\*04R

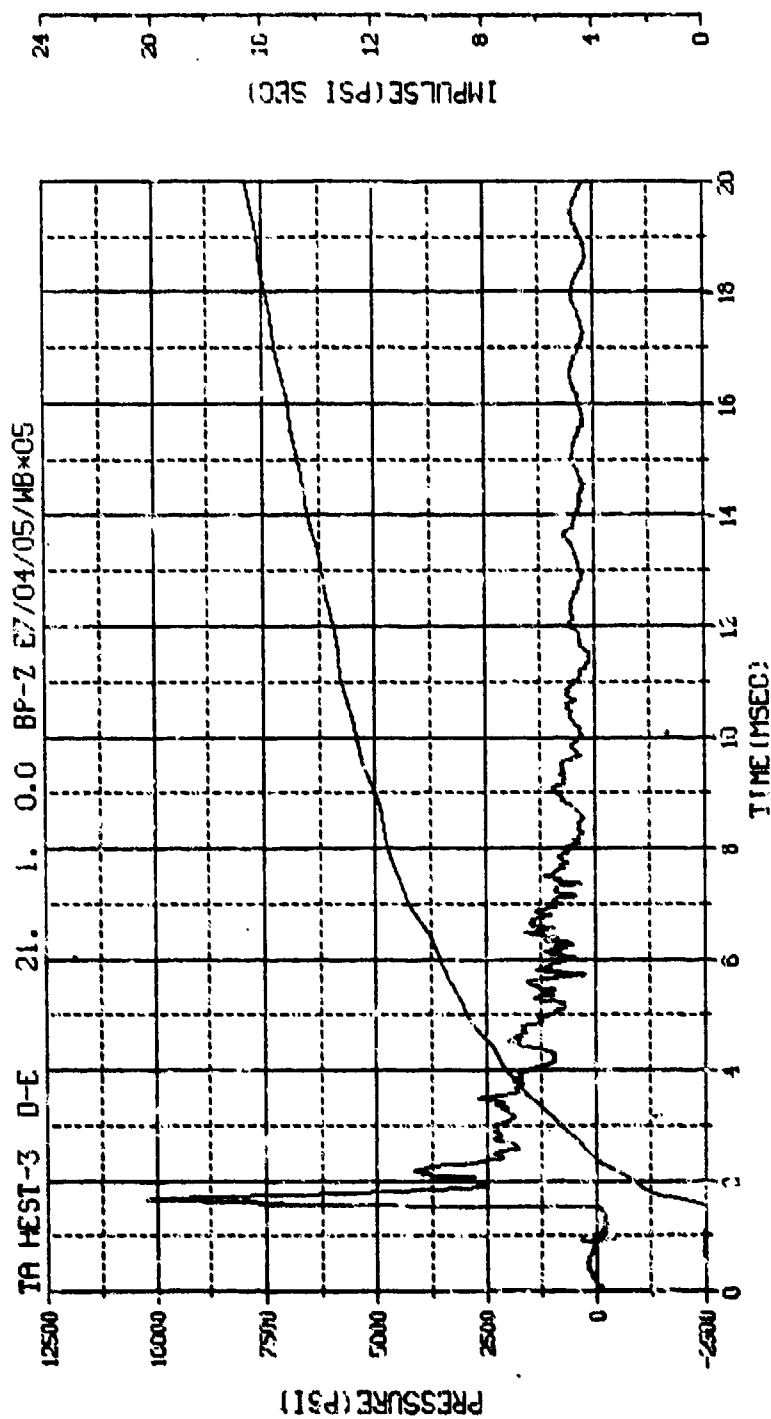


M.N. = 4	E.U. -0.000,9265.000	VSN-
TSKIP=12.640	DIGITS=0.000,680.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE=24

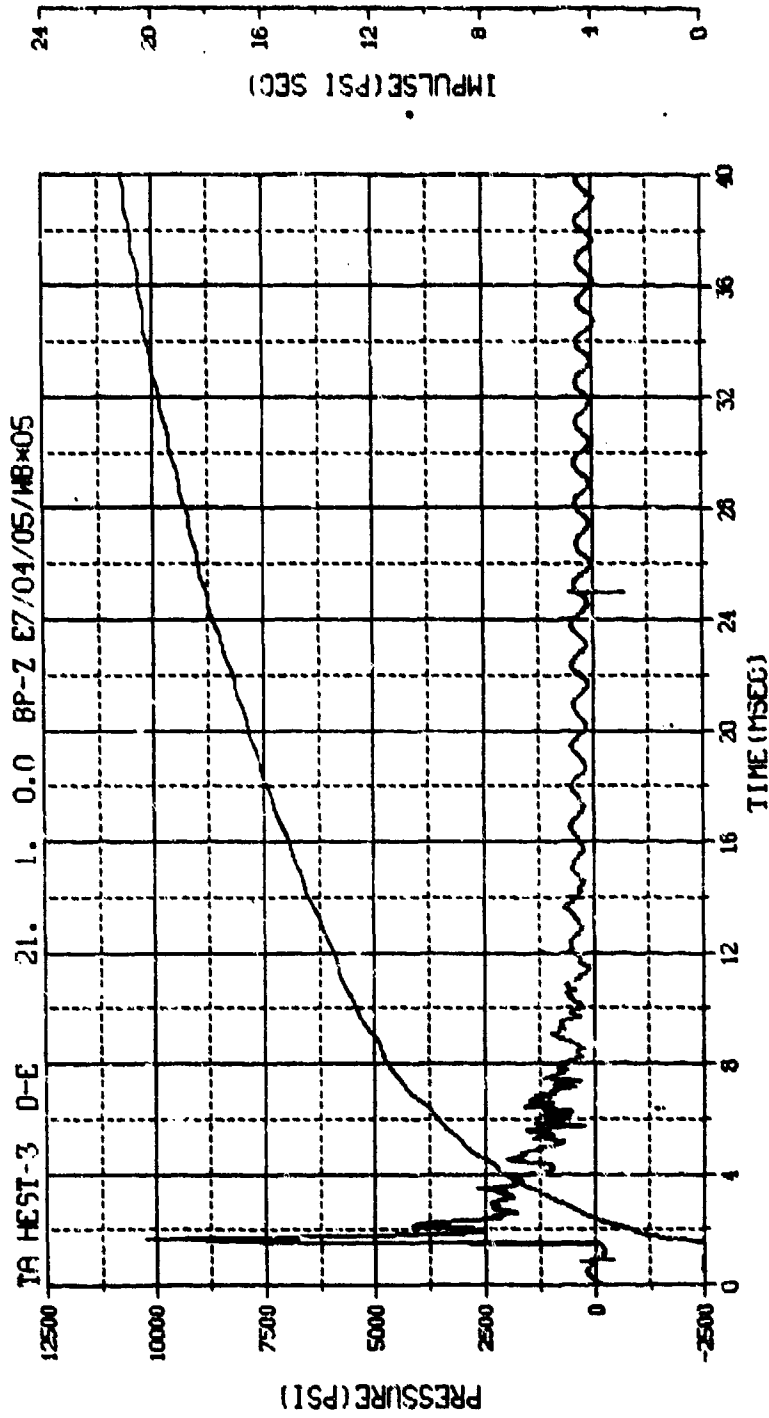
TAPEST-3 D-E 21. 1. 0.0 BP-Z E7/04/05/MB\*05



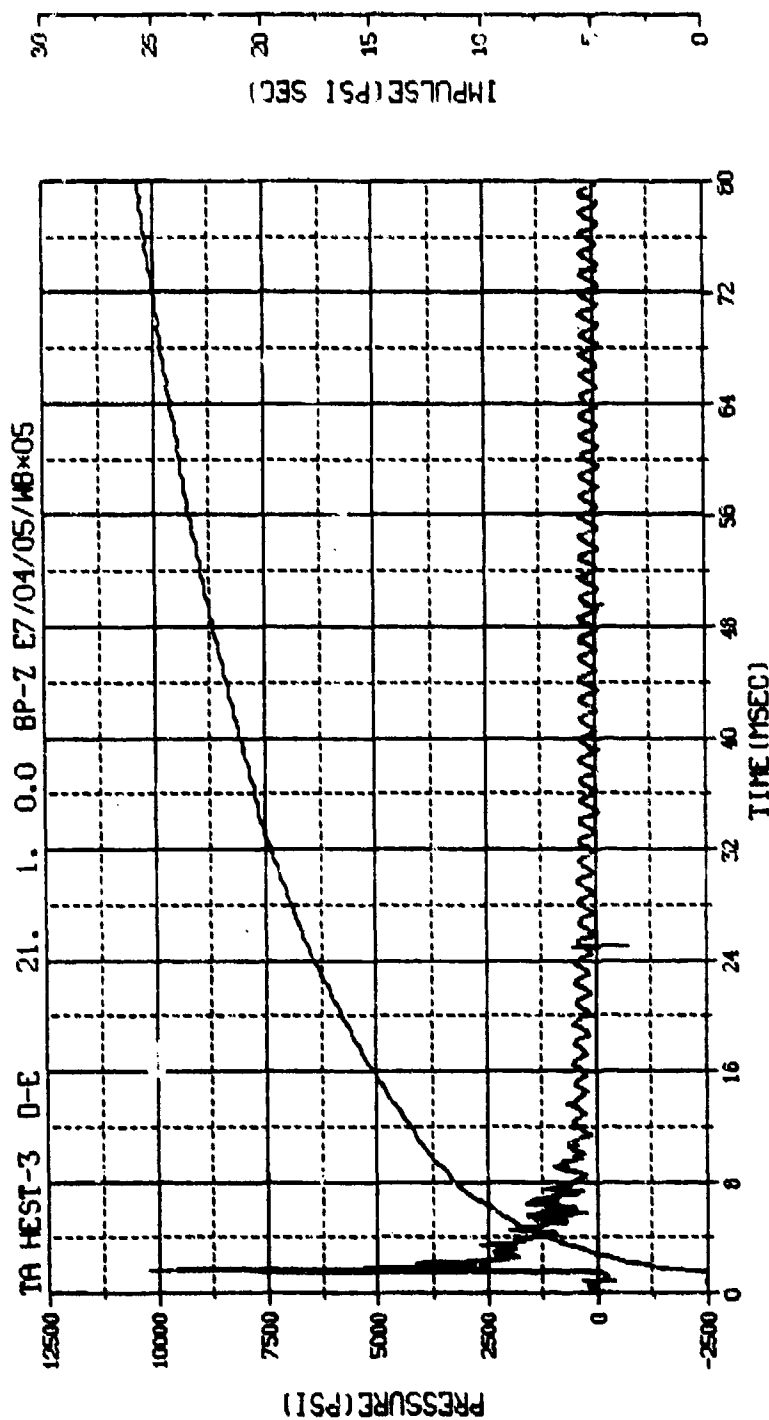
M.N. - 5	E.U. -0.000,7095.000	VSN- ED23
TSKIP-12.850	DIGITS-0.000,756.000	TAPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-40



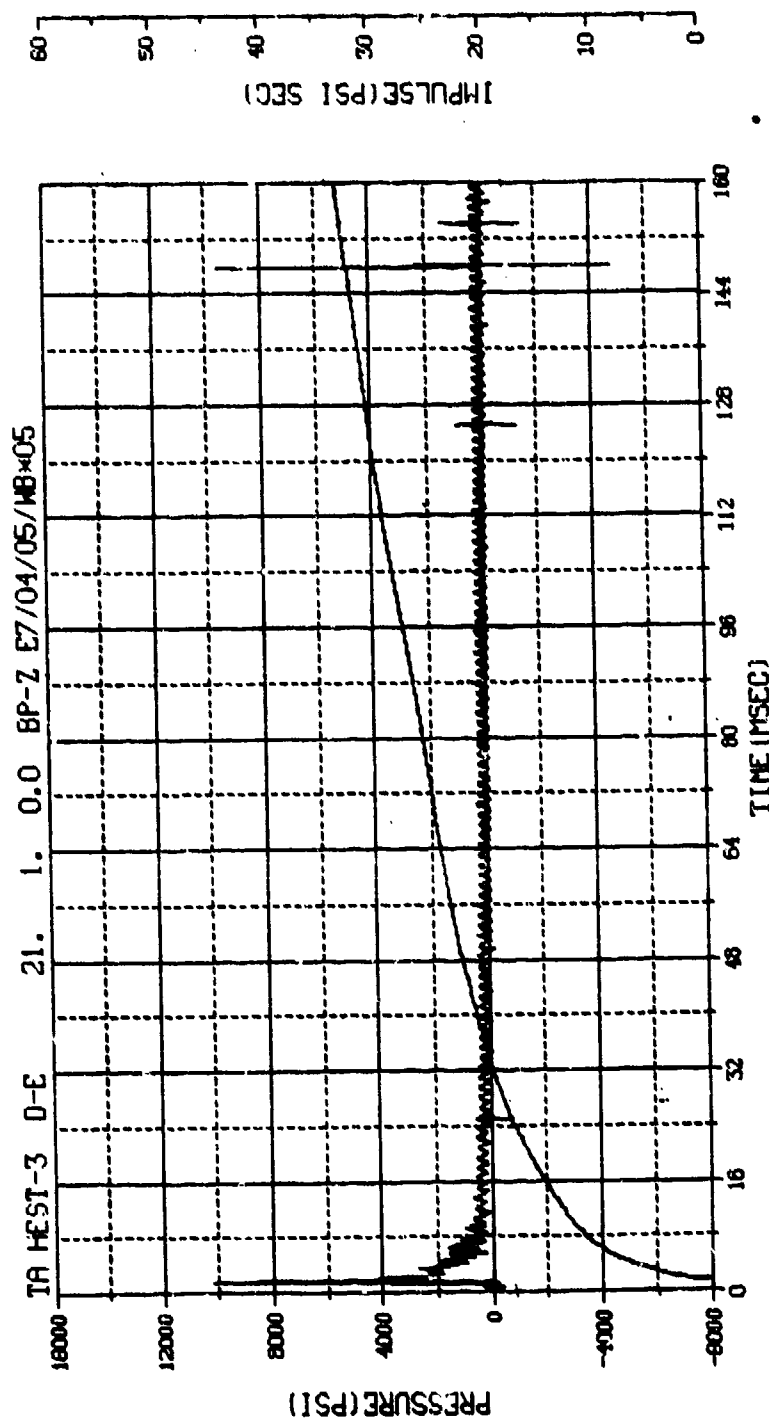
M.N. = 5	E.U. = -0.000,7095.000	VSN = ED23
TSKIP = 12.650	DIGITS = 0.000,756.000	TAPE 22
S.R. = 100.00 KHZ	11 36 AM, 2 MAY 78.	FILE = 40



M.N. = 5	E.U. -0.000,7095.000	VSN-
TSKIP=12.650	DIGITS=0.000,756.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE=40

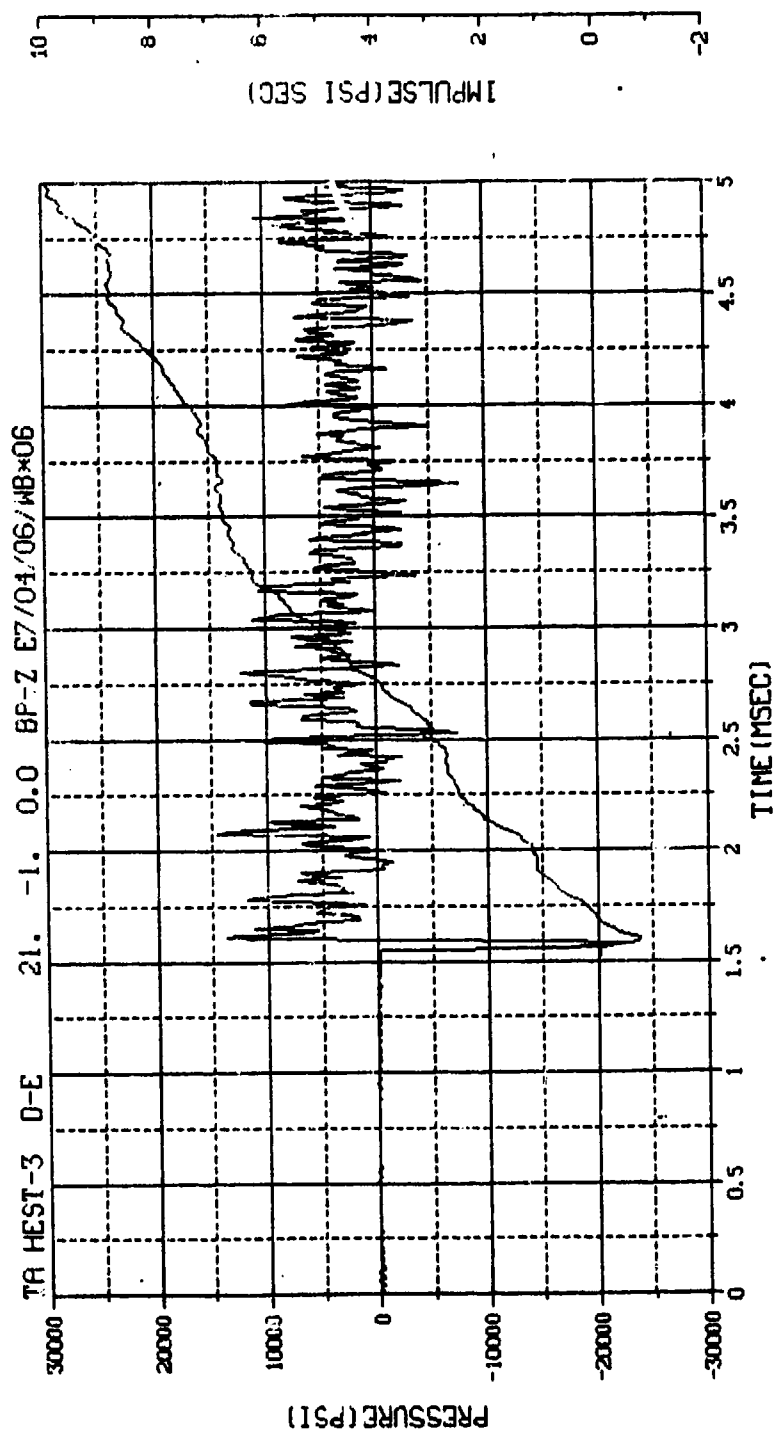


M.N. ~ 5	E.U. -0.000,7095.000	VSN-
TSKIP-12.650	DIGITS-0.000,756.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-40

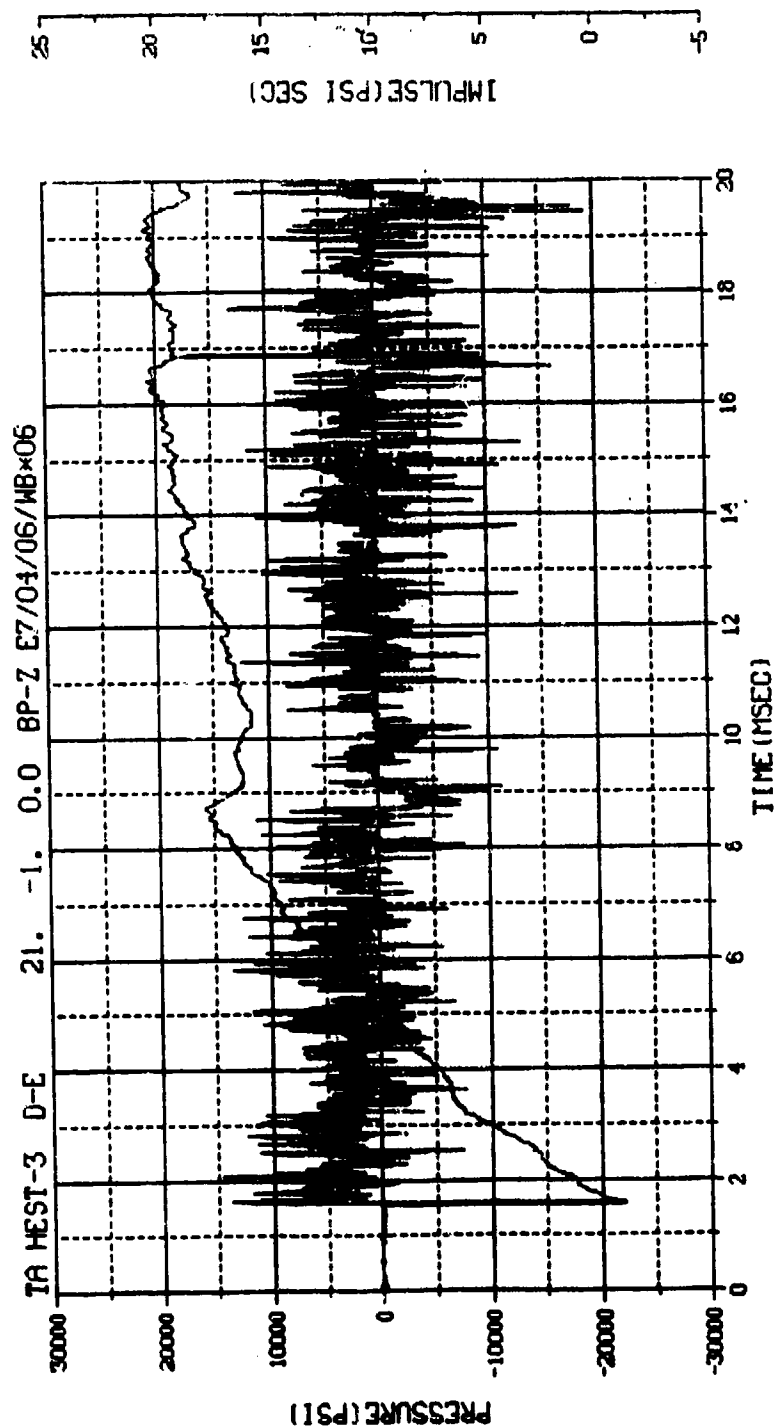


M.N. - 5	E.U. -0.000,7095.000	VSN-
TSKIP-12.650	DIGITS-0.000,756.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-40

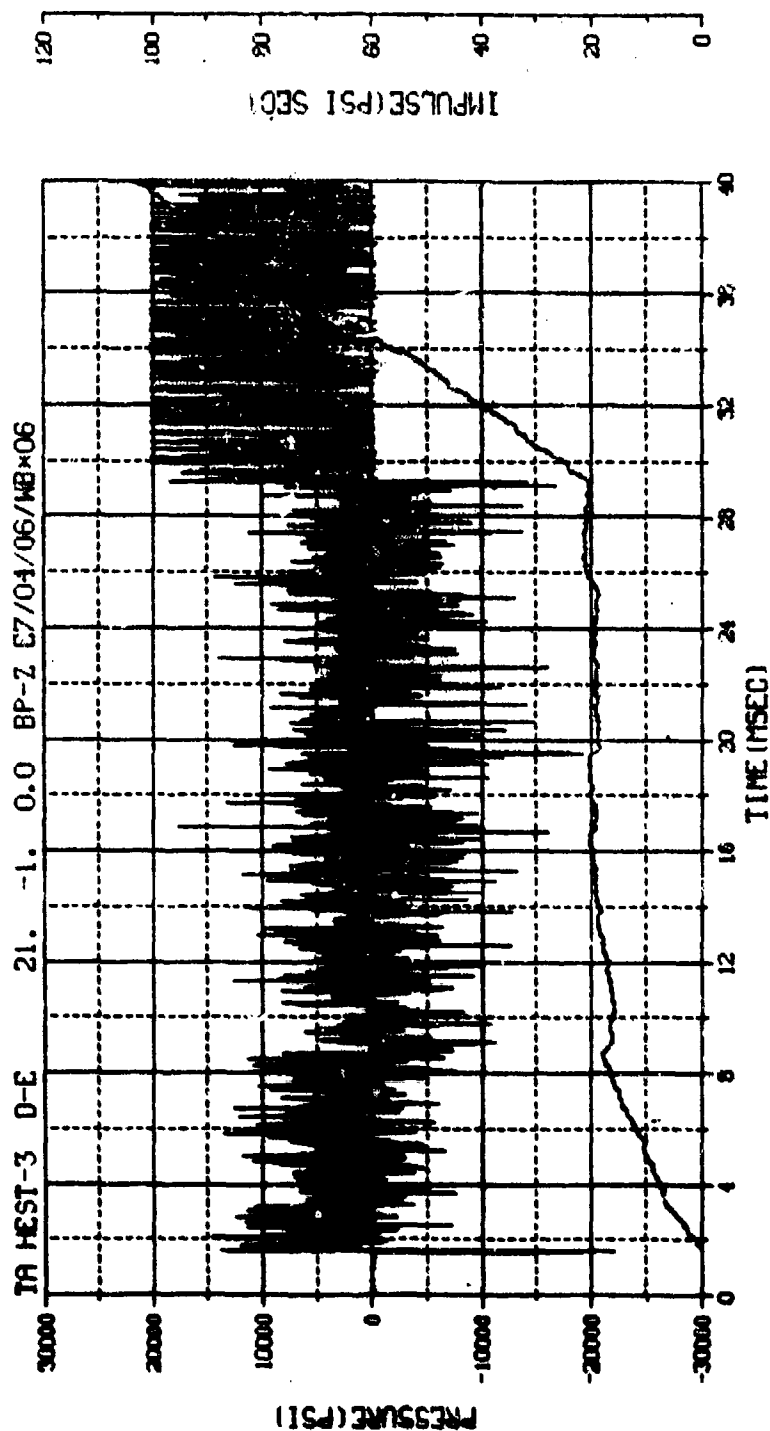




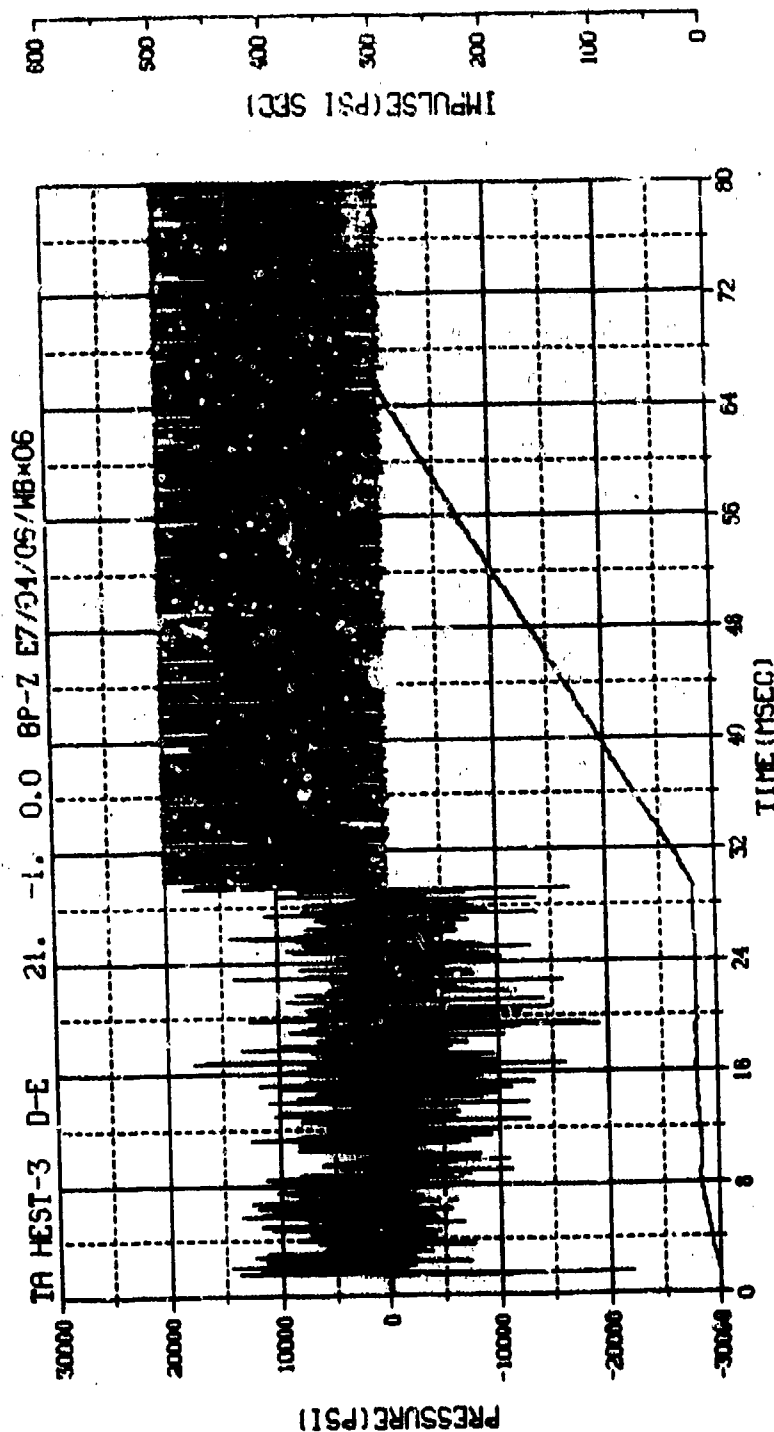
M.N. = 6	E.U. -0.000,6532.000	VSN= ED23
TSKIP=12.650	DIGITS=0.000,606.000	TAPE22
S.R. -100.00 KI/2	11 36 AM, 2 MAY 78.	FILE=42
		1



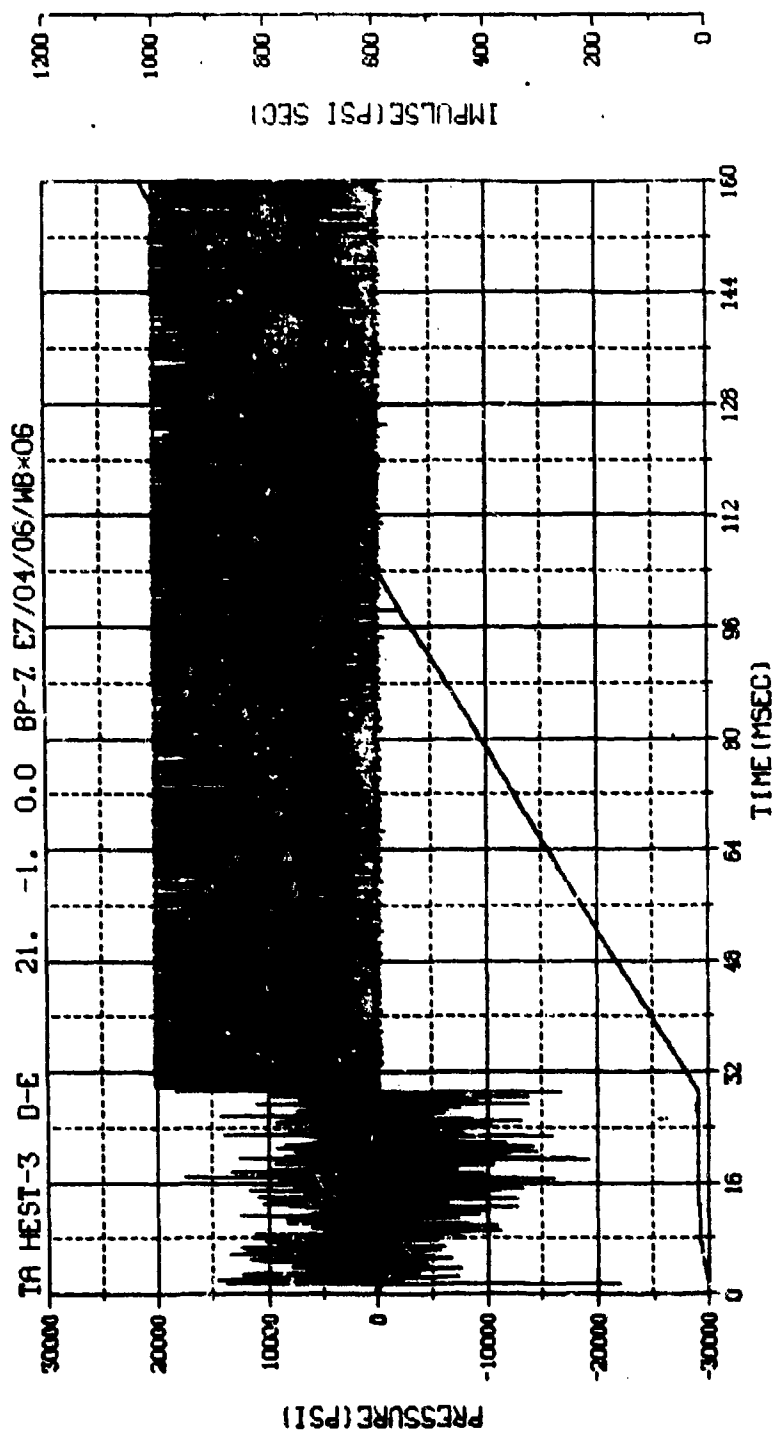
M.N. - 6	E.U. -0.000, 6532.000	VSN- ED23
TSKIP-12.650	DIGITS-0.000, 606.000	TAPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-42



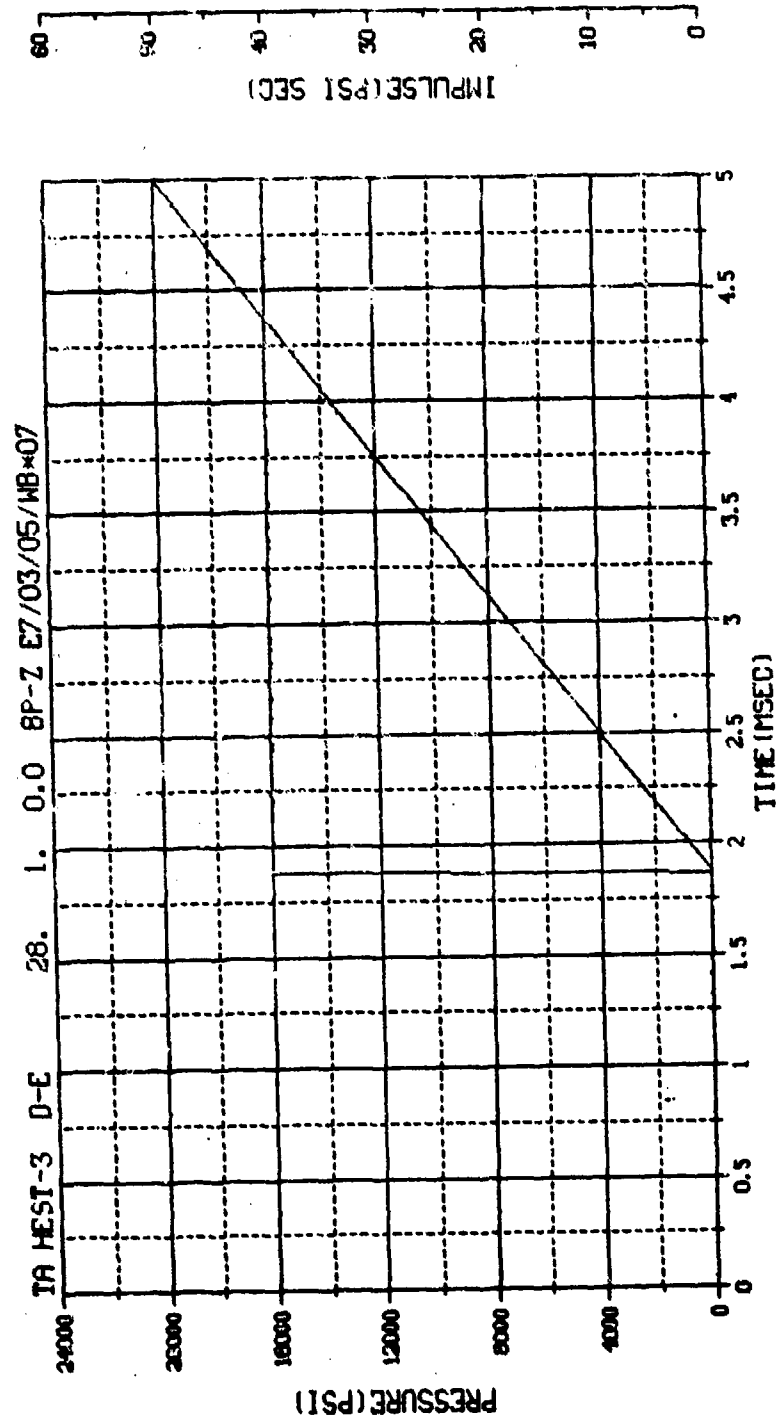
M.N. - 6	E.U. -0.000,6532.000	VSN-
TSKIP-12.650	DIGITS-0.000,606.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-42



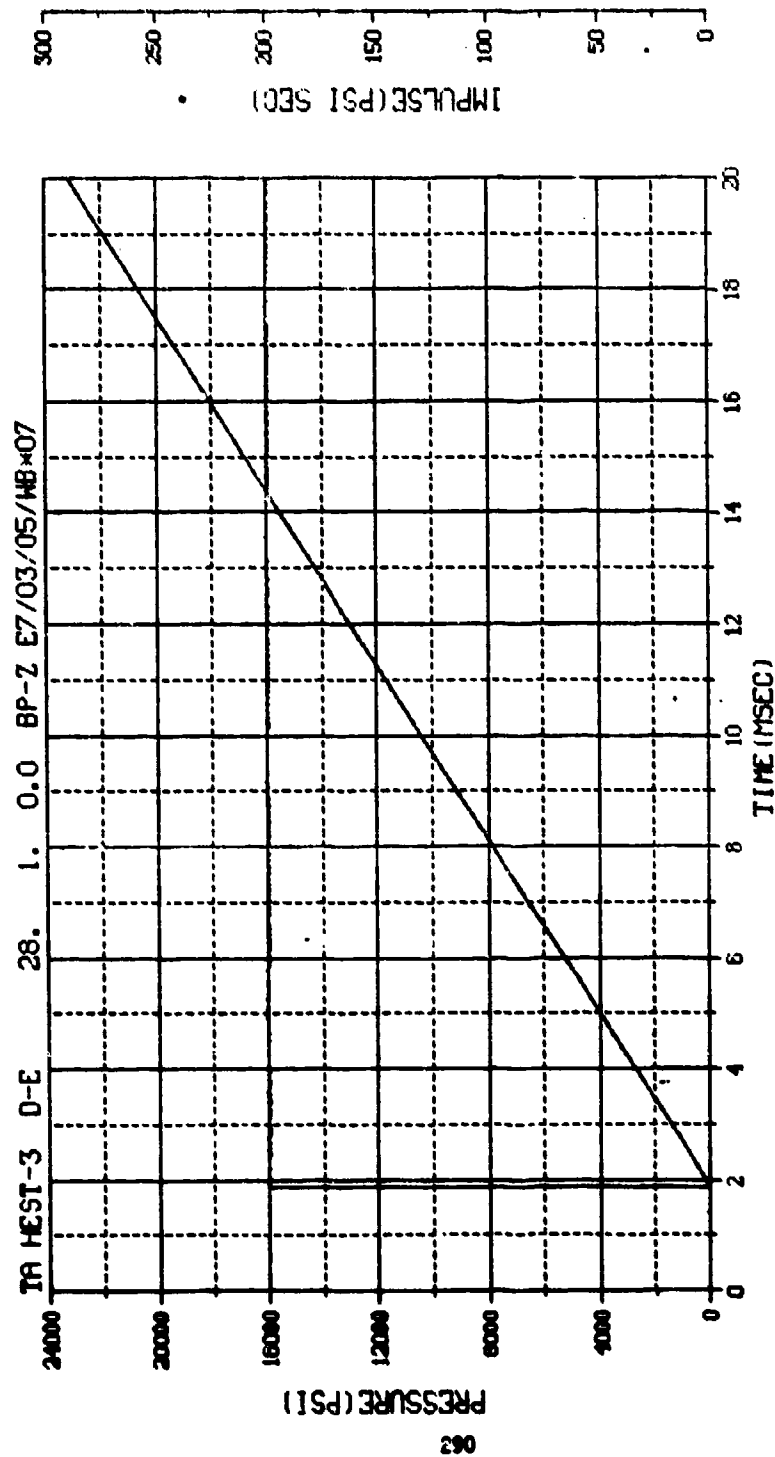
M.N. - 6	E.U. -0.000,6532.000	VSN-
TSKIP-12.650	DIGITS-0.000,606.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-42



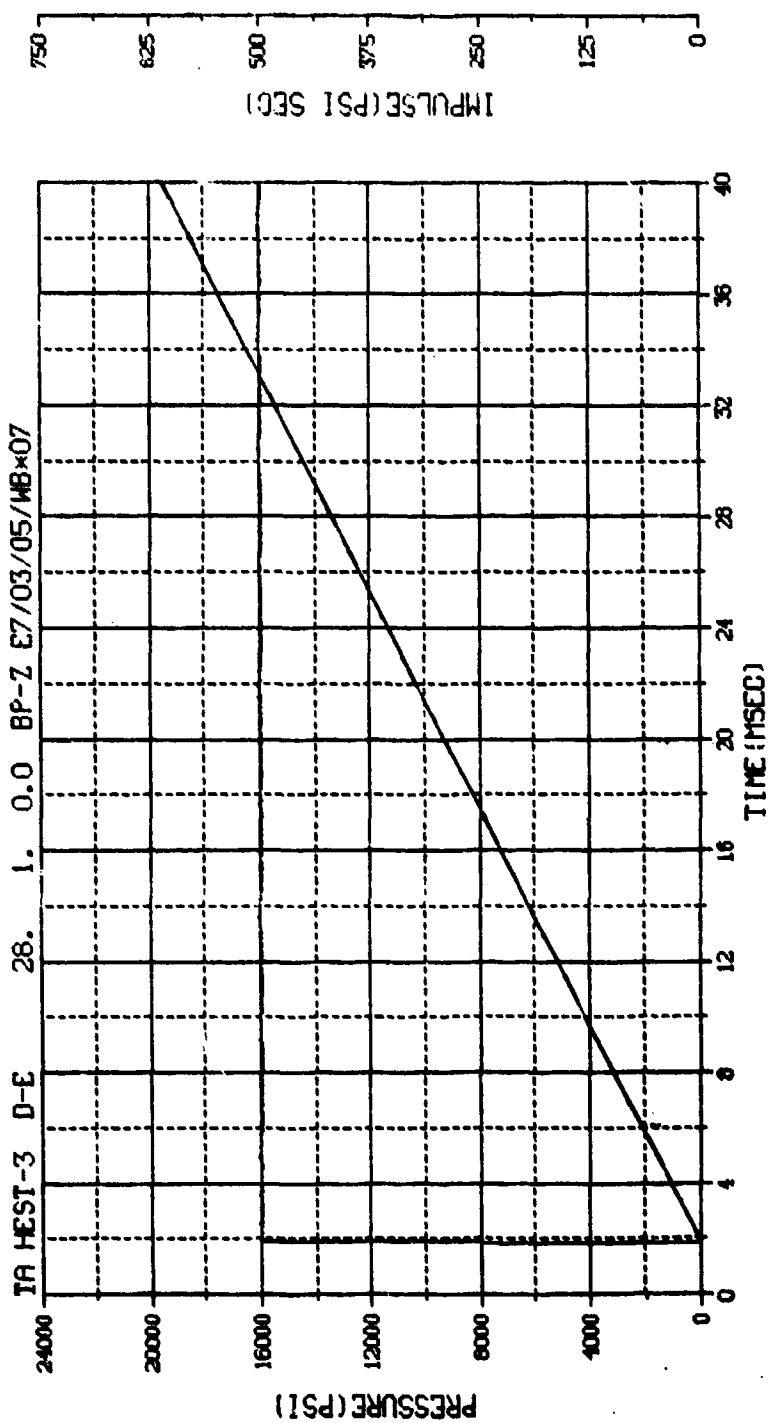
M.N. - 6	E.U. -0.000,6532.000	VSN-
TSKIP-12.650	DIGITS-0.000,606.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-42



M.N. - 7	E.U. -0.000,6583.000	VSN-
TSKIP-12.640	DIGITS-0.000,724.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-26



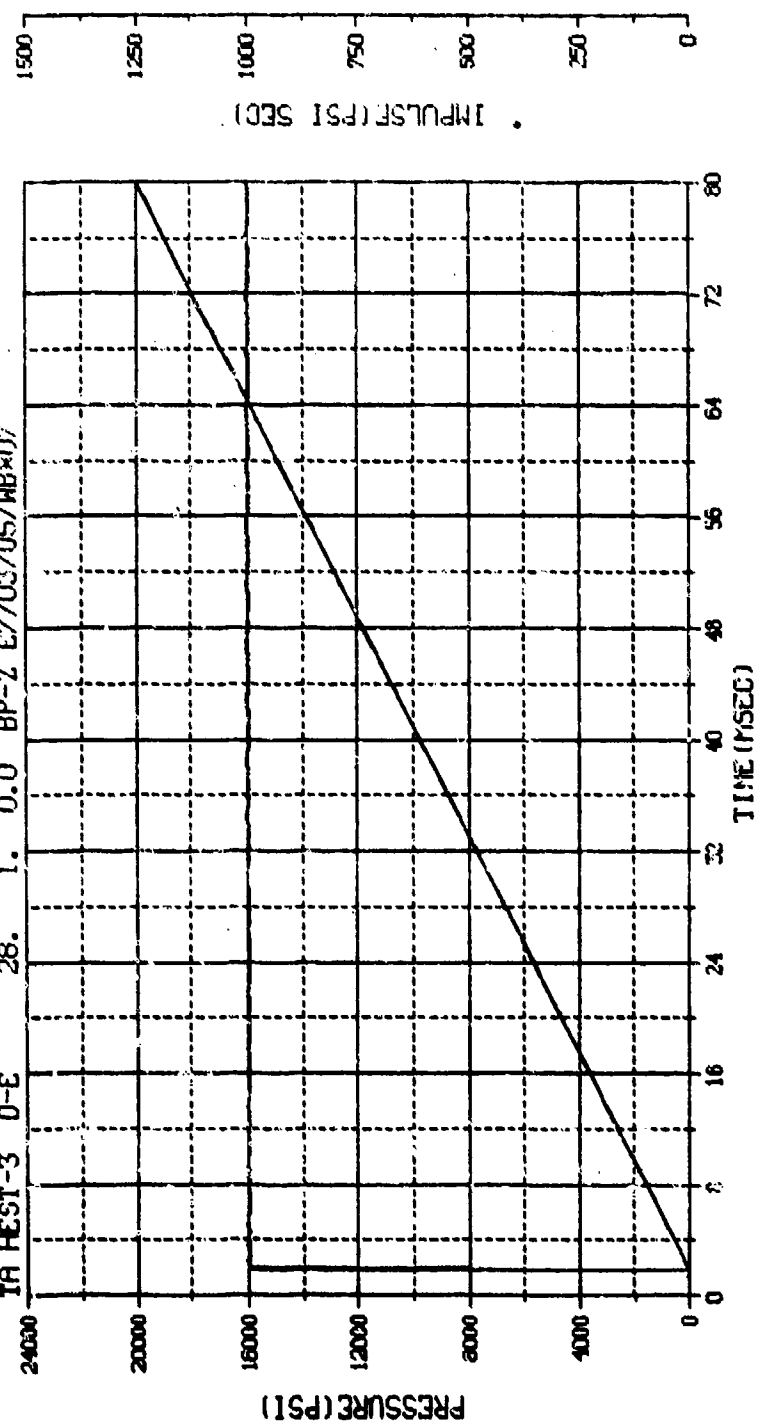
M.N. = 7	E.U. -0.000,6583.000	VSN-
TSKIP=12.640	DIGITS=0.000,724.000	TAPE22
S.R. -100.00 KHZ	8 50 FM, 2 MAY 78.	FILE=26



M.N. - 7	E.U. -0.000,6583.000	VSN-
TSKIP-12.640	DIGITS-0.000,724.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-26

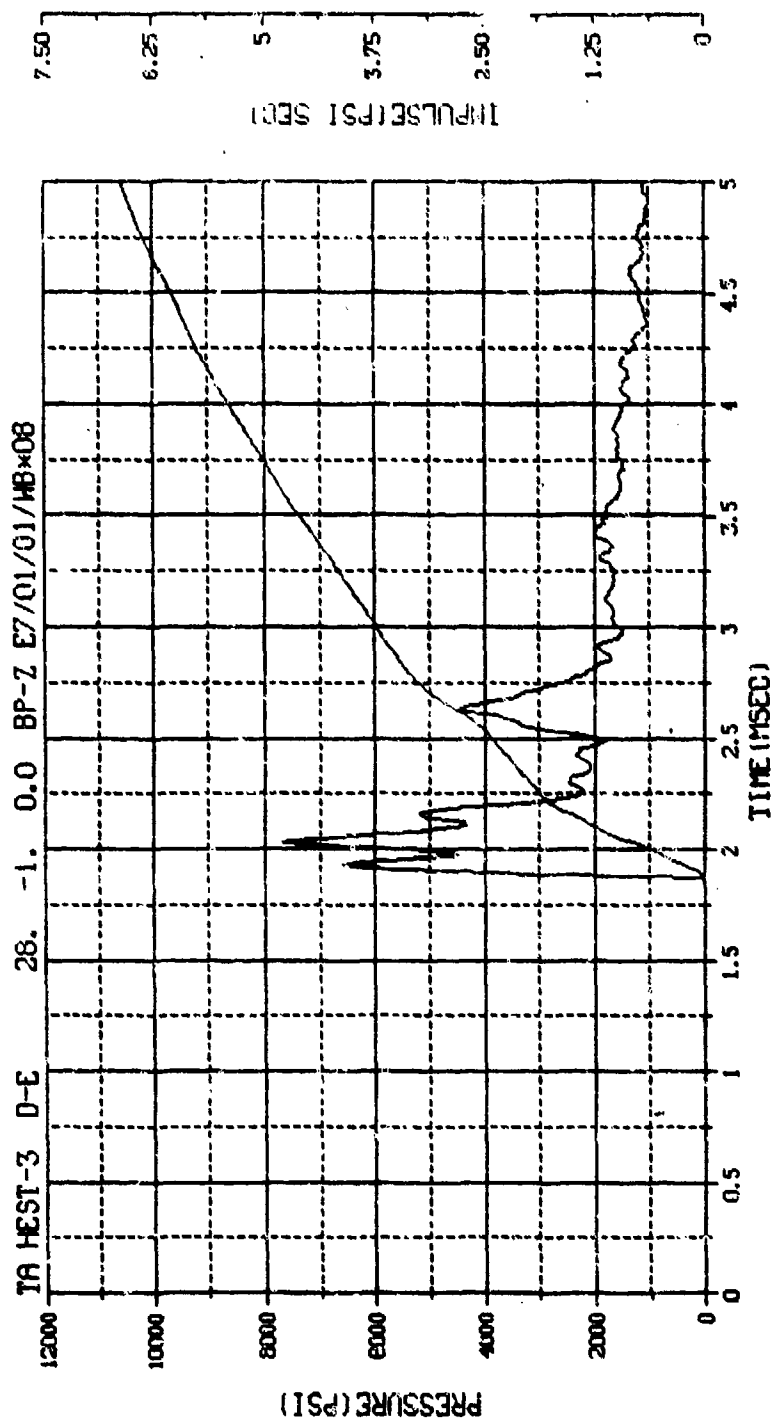


TA HEST-3 D-E 28. 1. 0.0 BP-Z E7/03/05/WB\*07

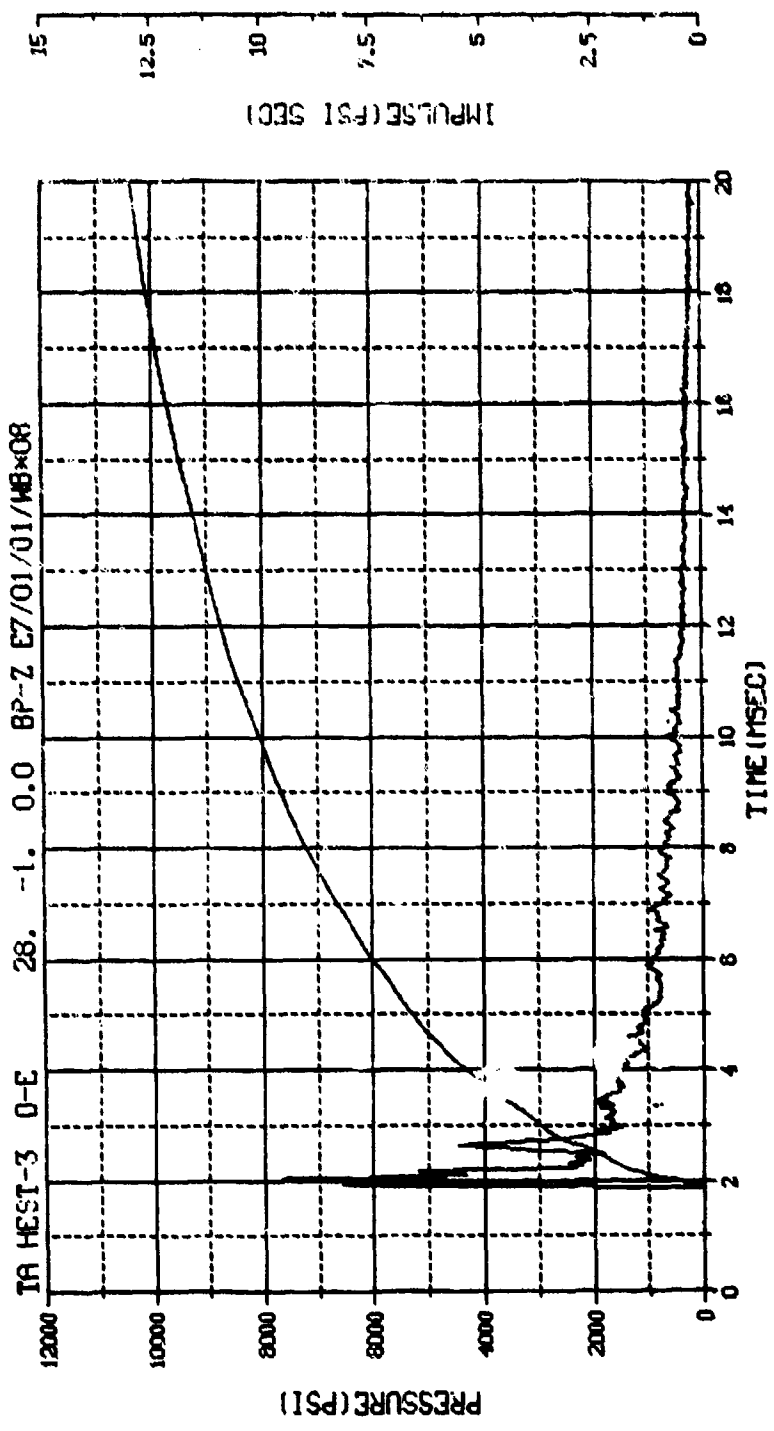


M.N. = 7	E.U. = -0.000,6583,000	VSN =
TSKIP = 12.640	DIGITS = 0.000,724,000	TAPE 22
S.R. = 100.00 KHZ	3 50 AM, 2 MAY 78.	FILE-26

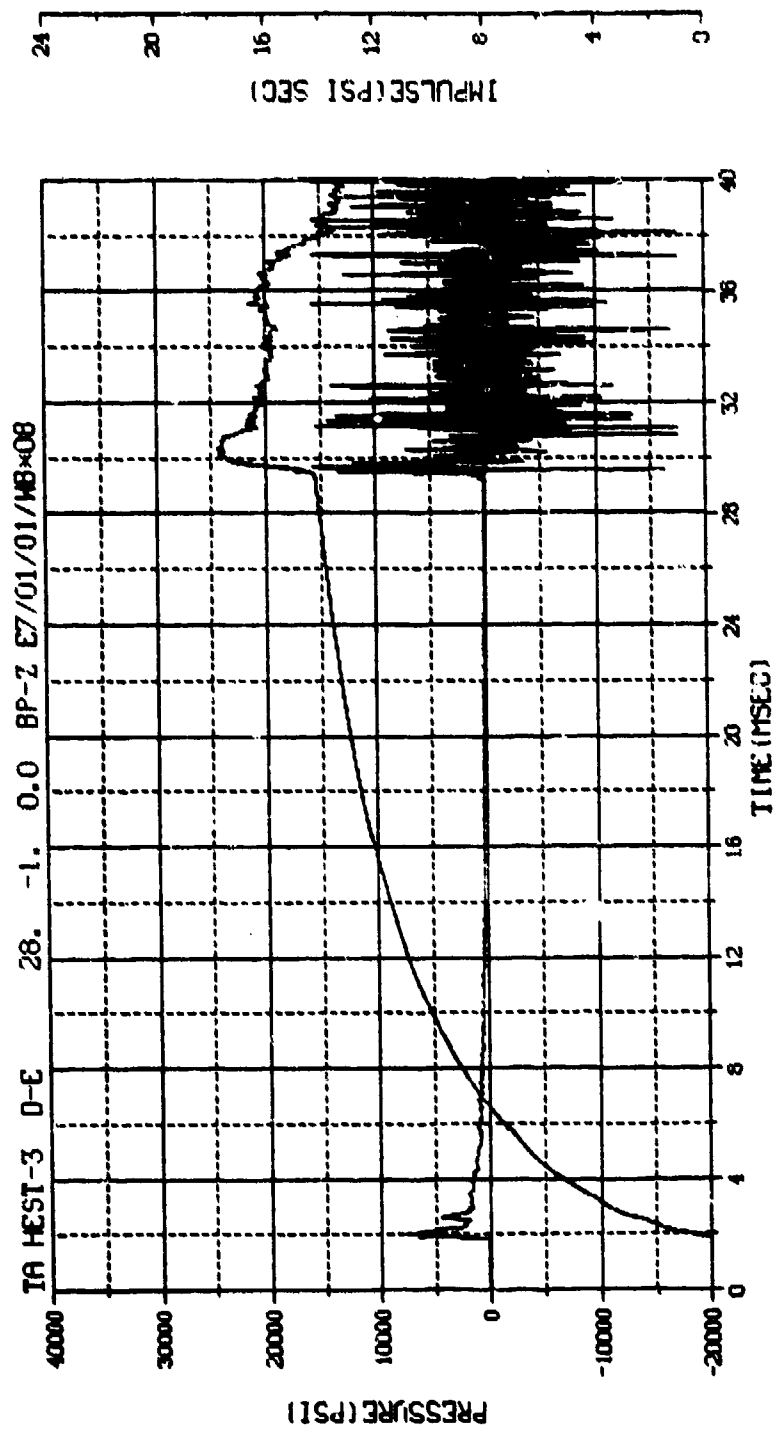




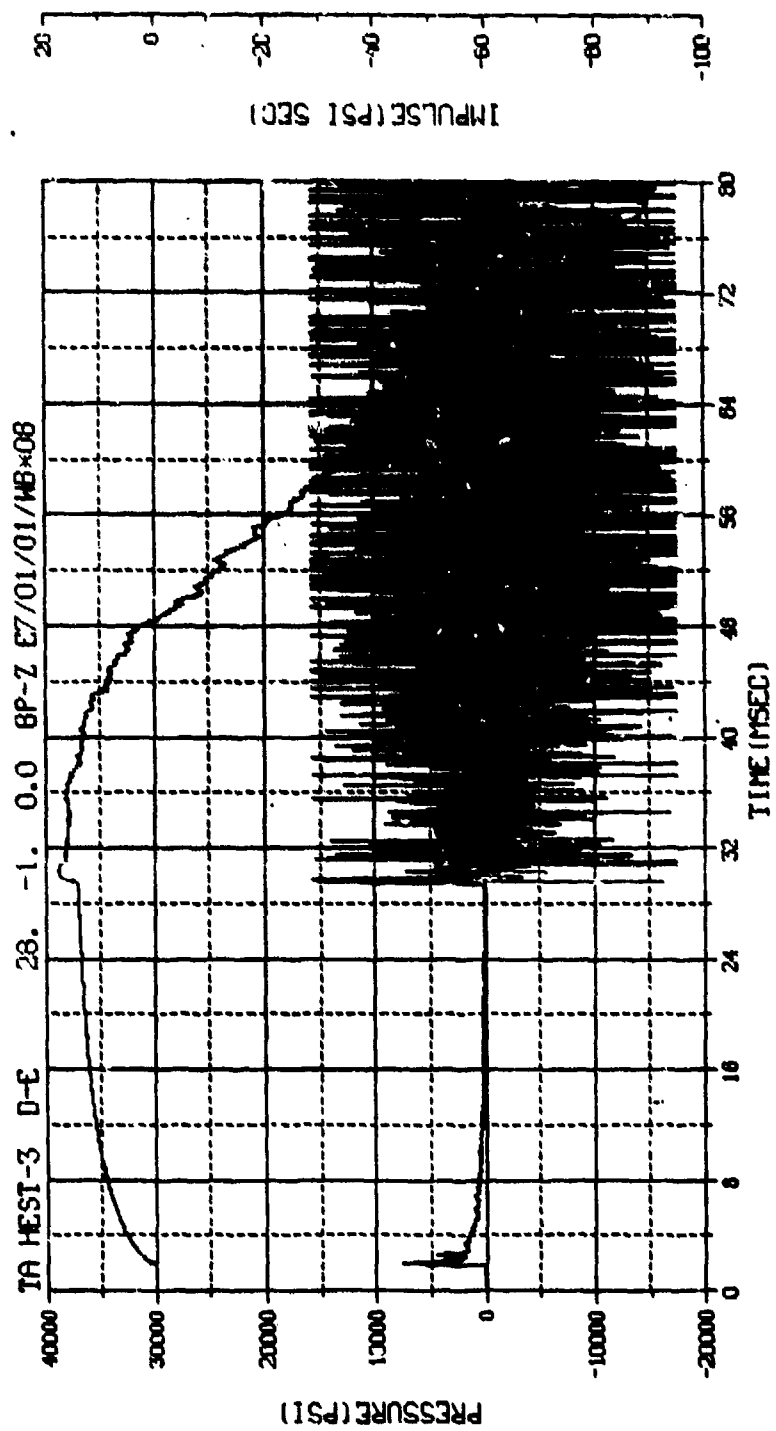
M.N. - 8	E.U. -0.000,6514.000	VSN-
TSKIP-12.640	DIGITS-0.000,764.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-2



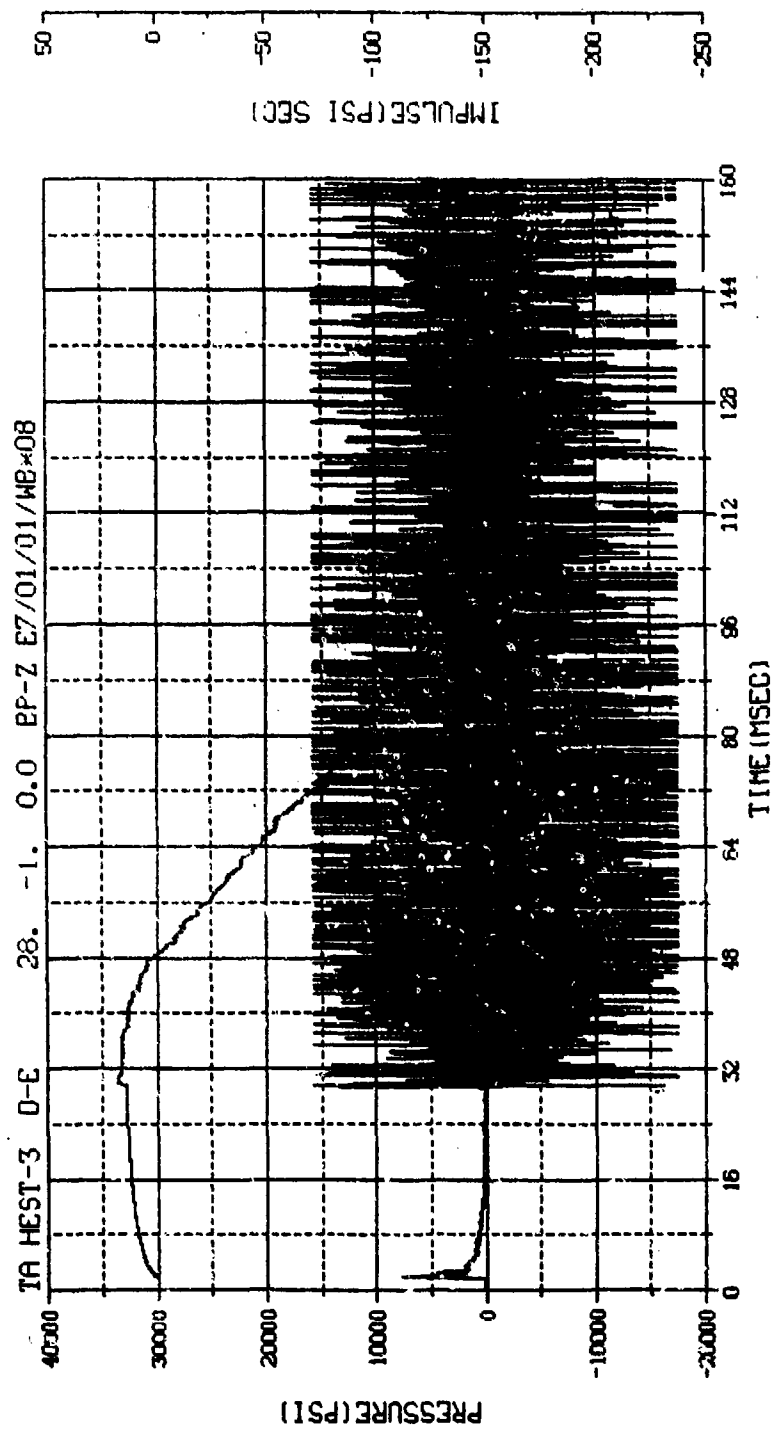
M.N. = 8	E.U. -0.000,6514.000	VSN-
TSKIP-12.640	DIGITS-0.000,764.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-2



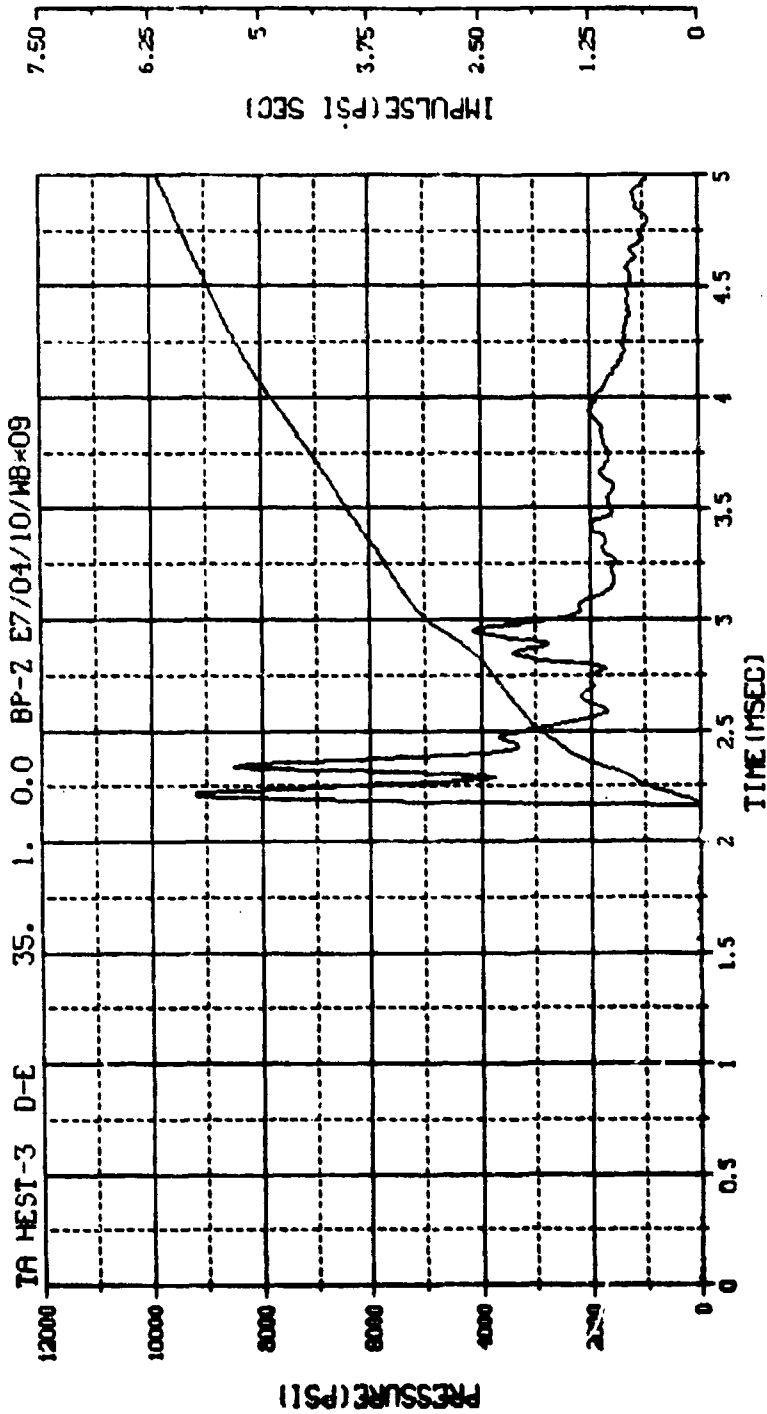
M.N. - 8	E.U. -0.000,6514.000	VSN-
TSKIP-12.640	DIGITS-0.000,764.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-2



M.N. - 8	E.U. -0.000,6514.000	VSN-
TSKIP-12.640	DIGITS-0.000,764.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-2

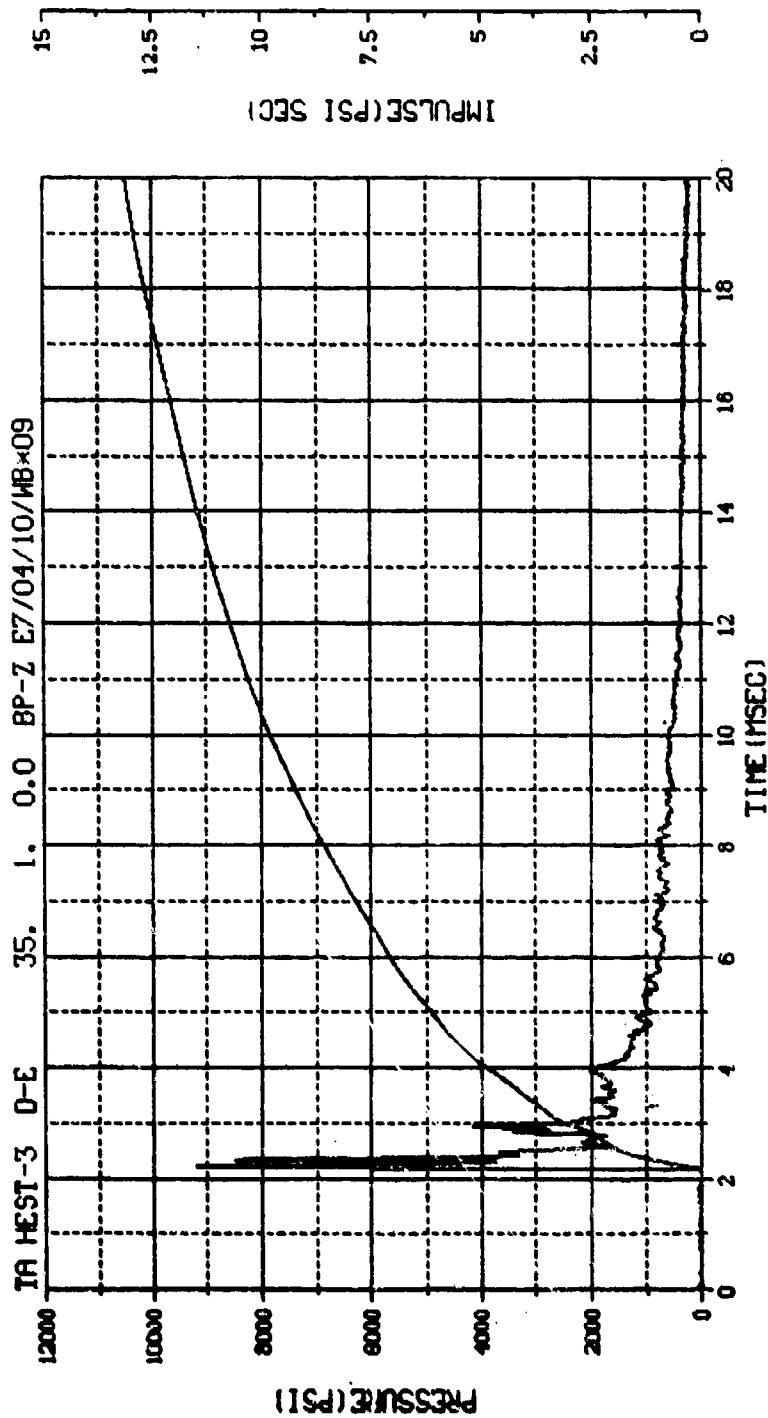


M.N. - 8	E.U. -0.000,6514.000	VSN-
TSKIP-12.640	DIGITS-0.000,764.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-2

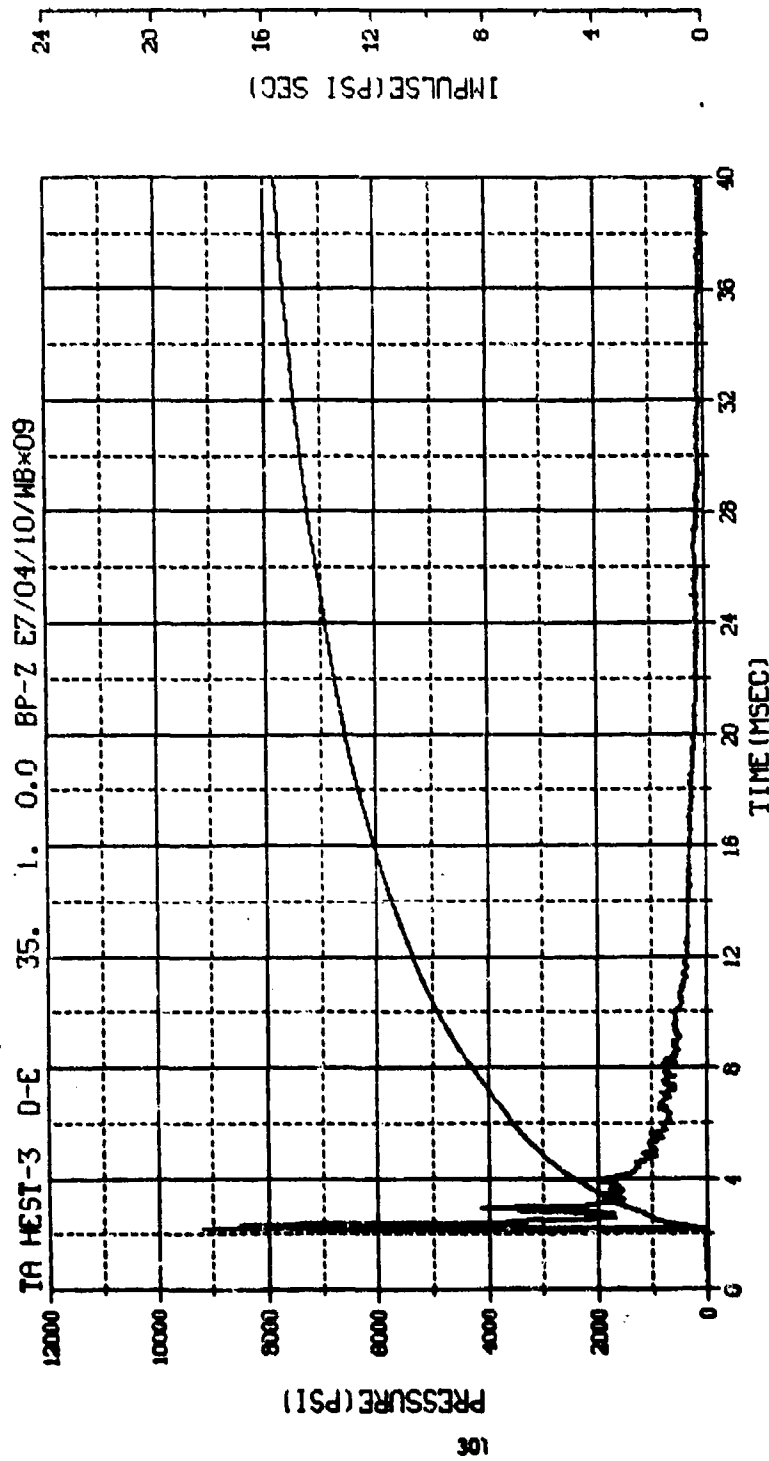


M.N. - 9	E.U. -0.000,6454.000	VSN- ED23
TSKIP-12.650	DIGITS-0.000,831.500	TAPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-44

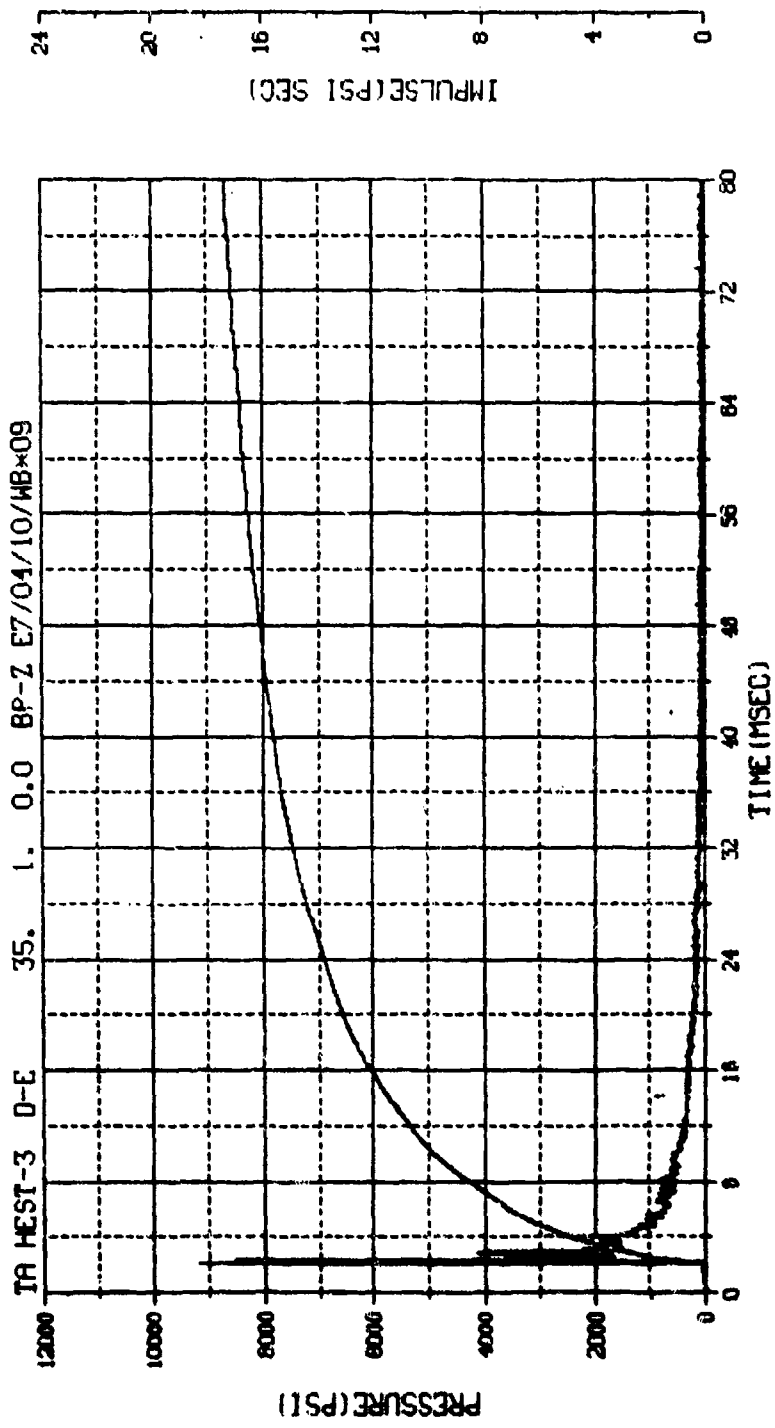




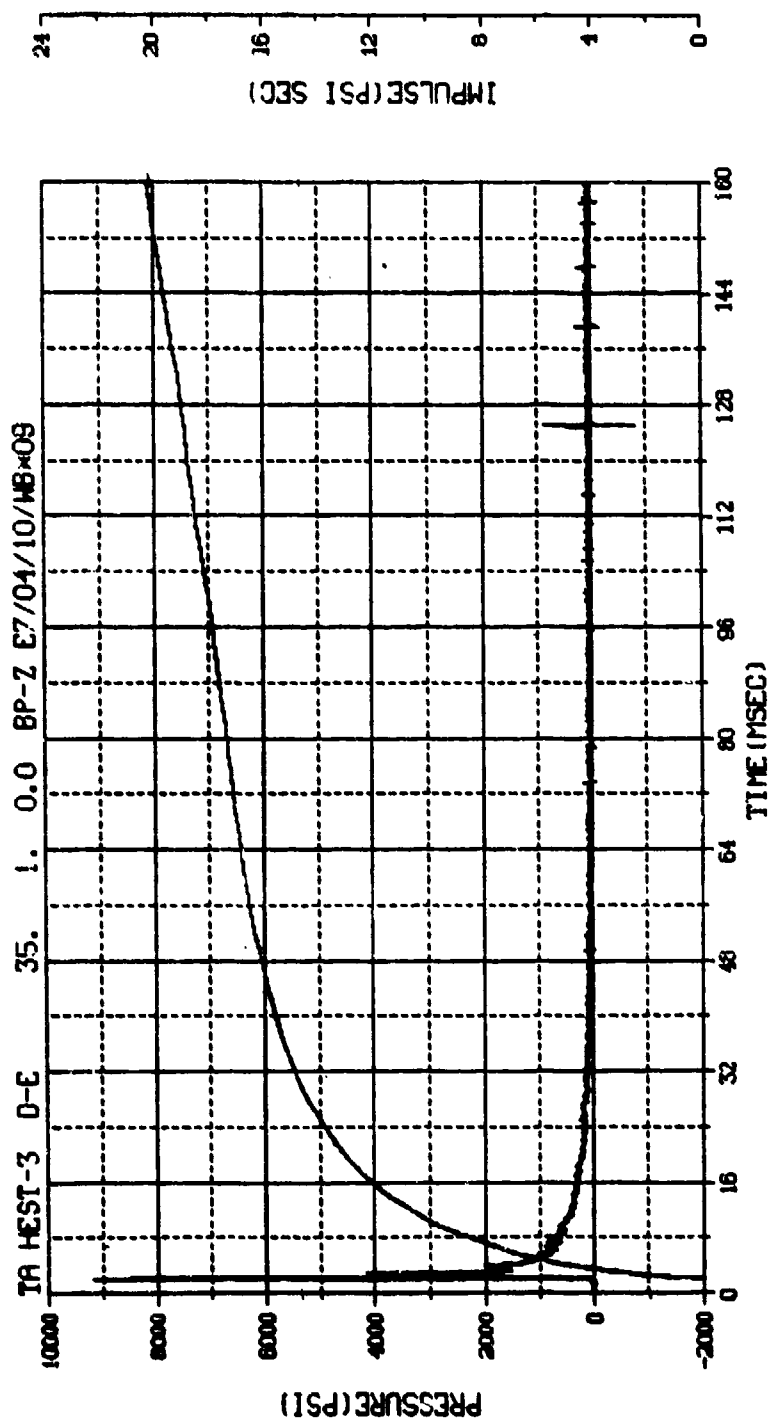
M.N. - 9	E.U. -0.000,6454.000	VSN- ED23
TSKIP-12.650	DIGITS-0.000,831.500	TAPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-44



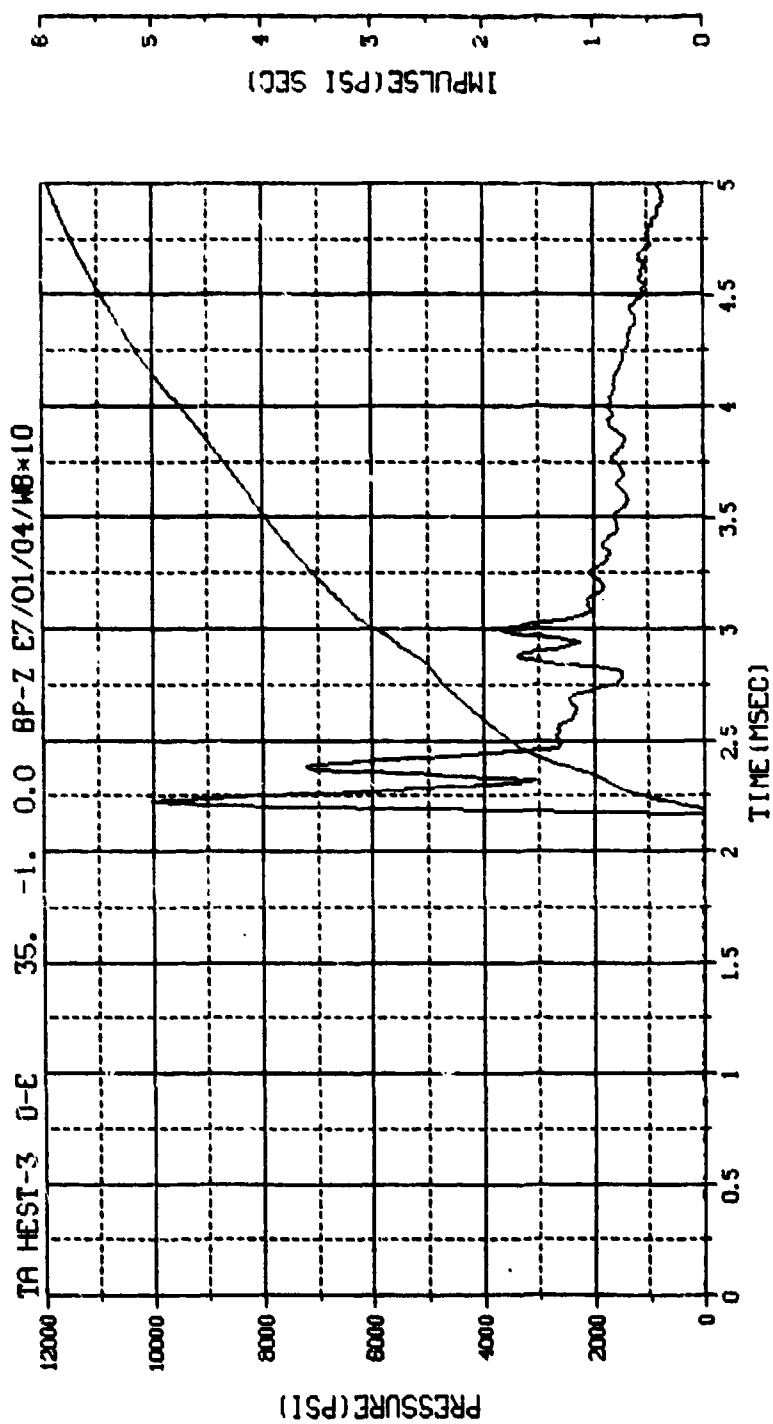
M.N. - 9	E.U. -0.000,6454.000	VSN-
TSKIP-12.650	DIGITS-0.000,831.500	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-44



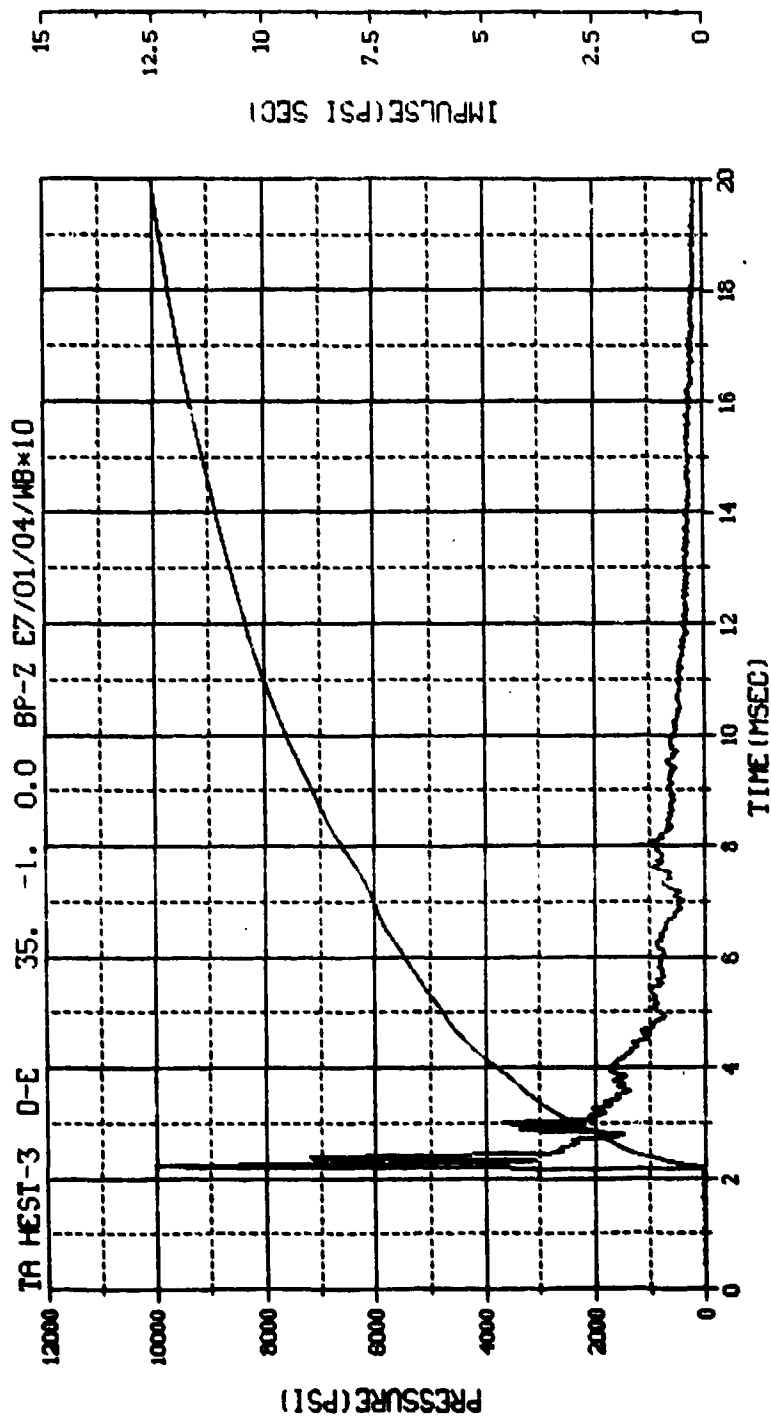
M.N. - 9	E.U. -0.000,6454.000	VSN-
TSKIP-12.650	DIGITS-0.000,831.500	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-44



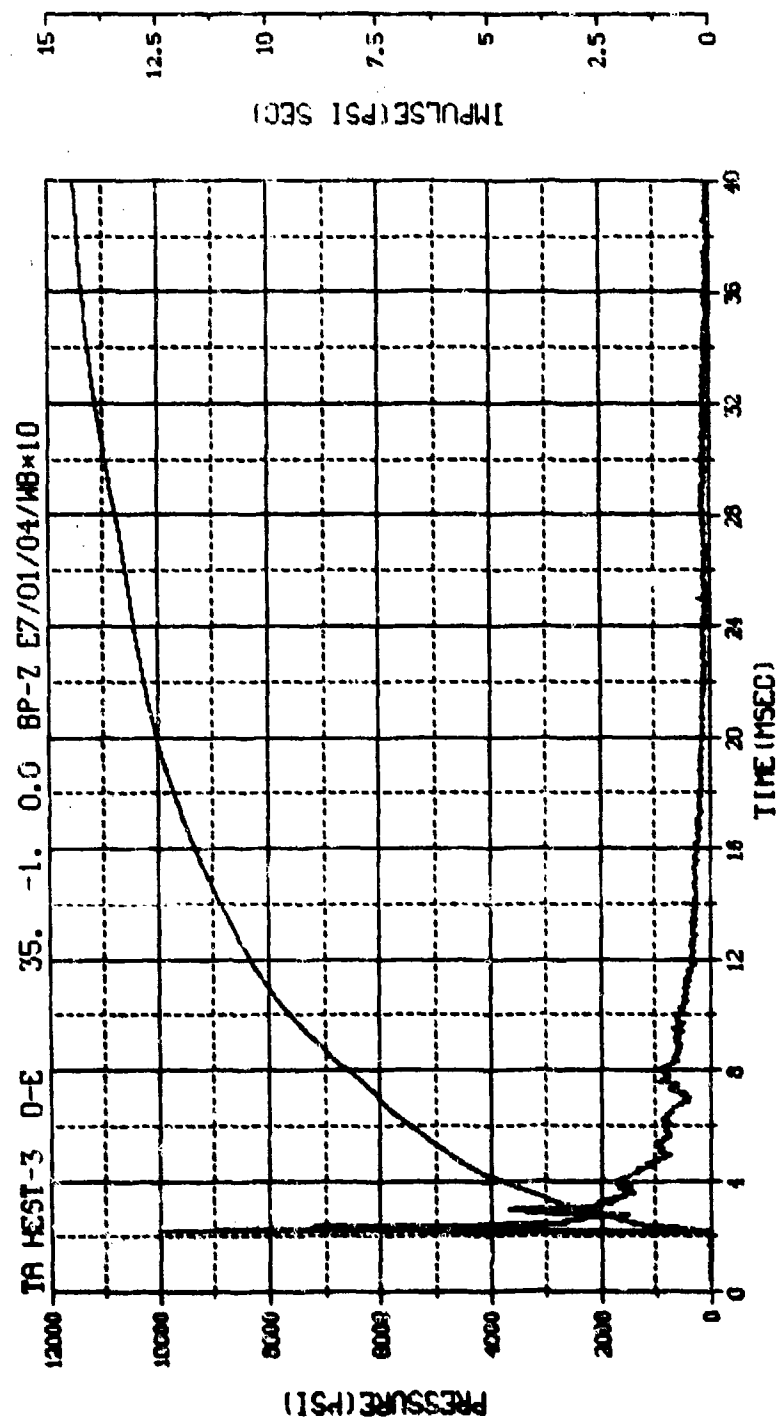
M.N. - 9	E.U. -0.000,6454.000	VSN-
TSKIP-12.659	DIGITS-0.000,831.500	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-44



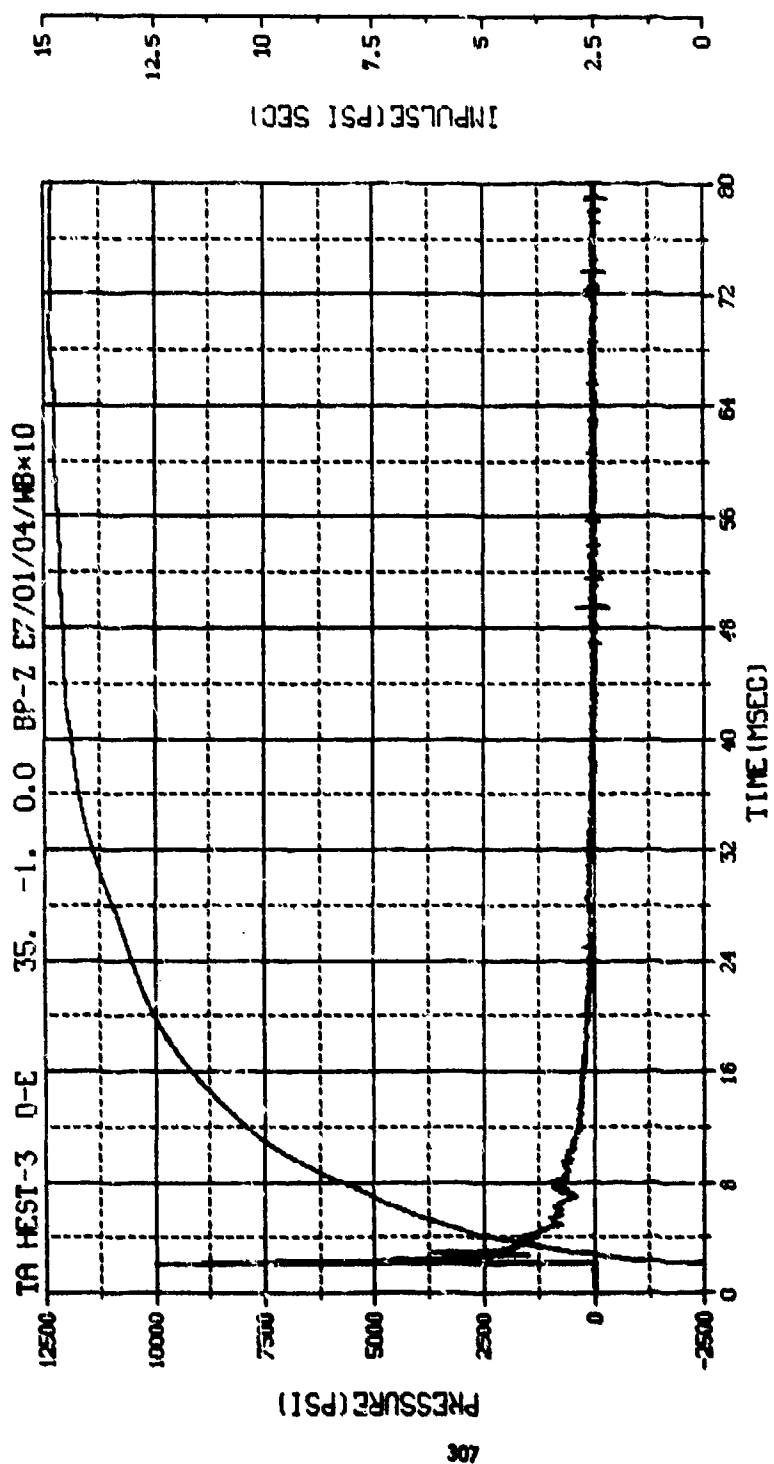
M.N. - 10	E.U. -0.000,6272.000	VSN-
TSKIP-12.640	DIGITS-0.000,834.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-8



M.N. - 10	E.U. -0.000,6272.000	VSN-
TSKIP-12.640	DIGITS-0.000,834.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-8



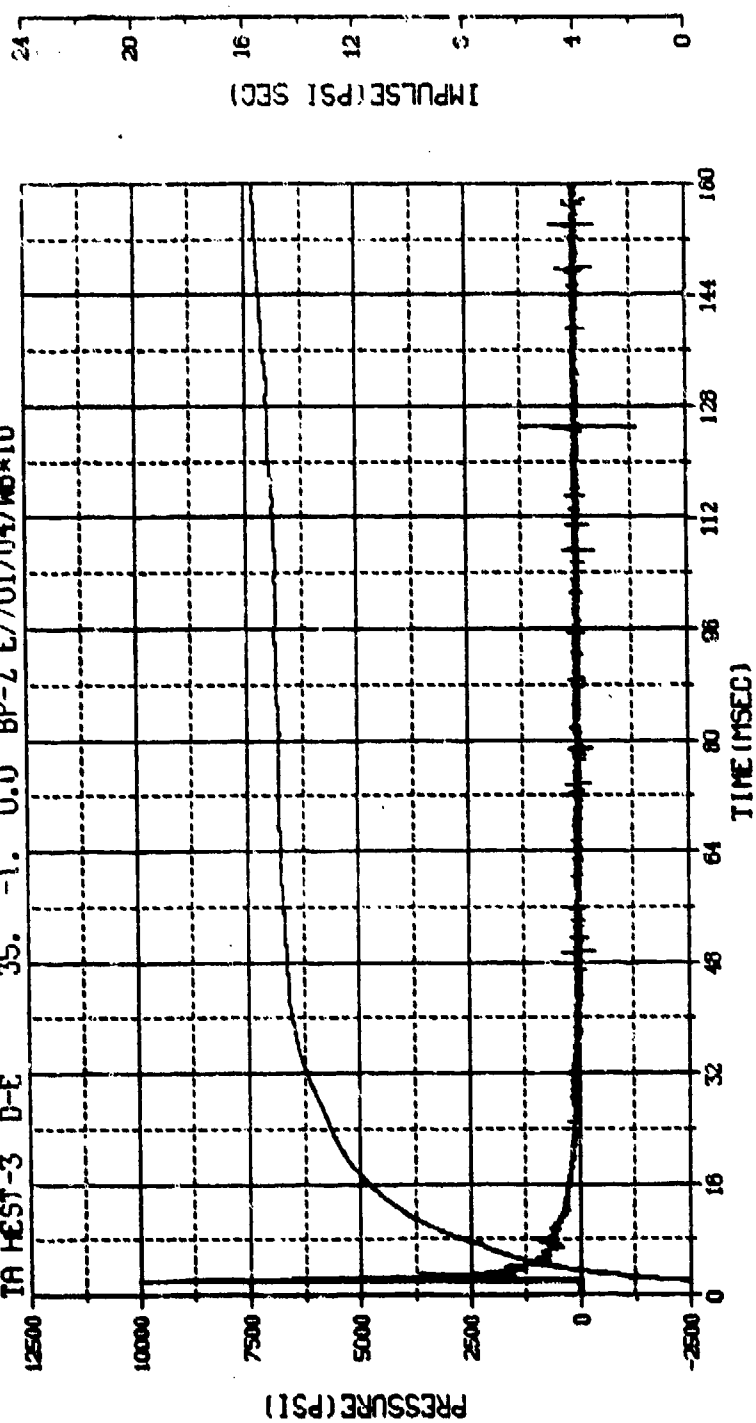
M.N. - 10	E.U. -0.000,6272.000	VSN-
TSKIP-12.640	DIGITS-0.000,934.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-8



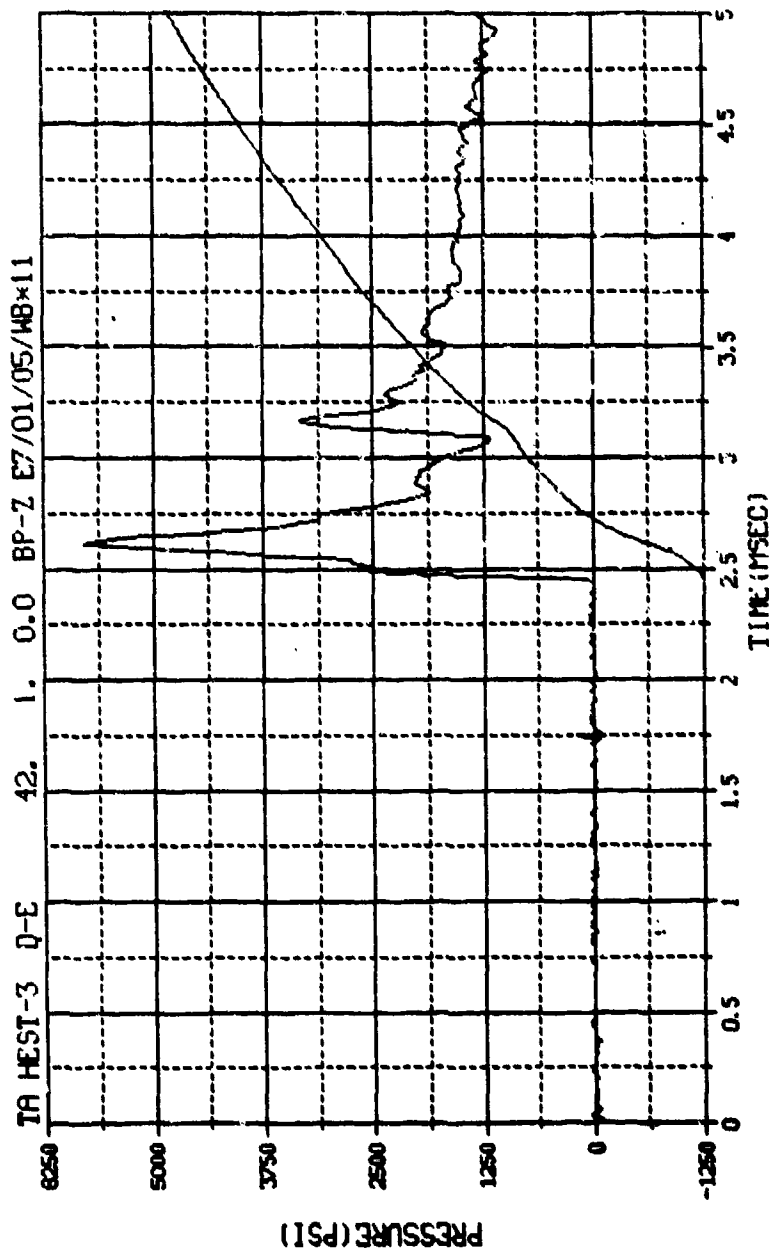
M.N. - 10	E.U. -0.000,6272.000	VSN-
TSKIP-12.640	DIGITS-0.000,834.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-8



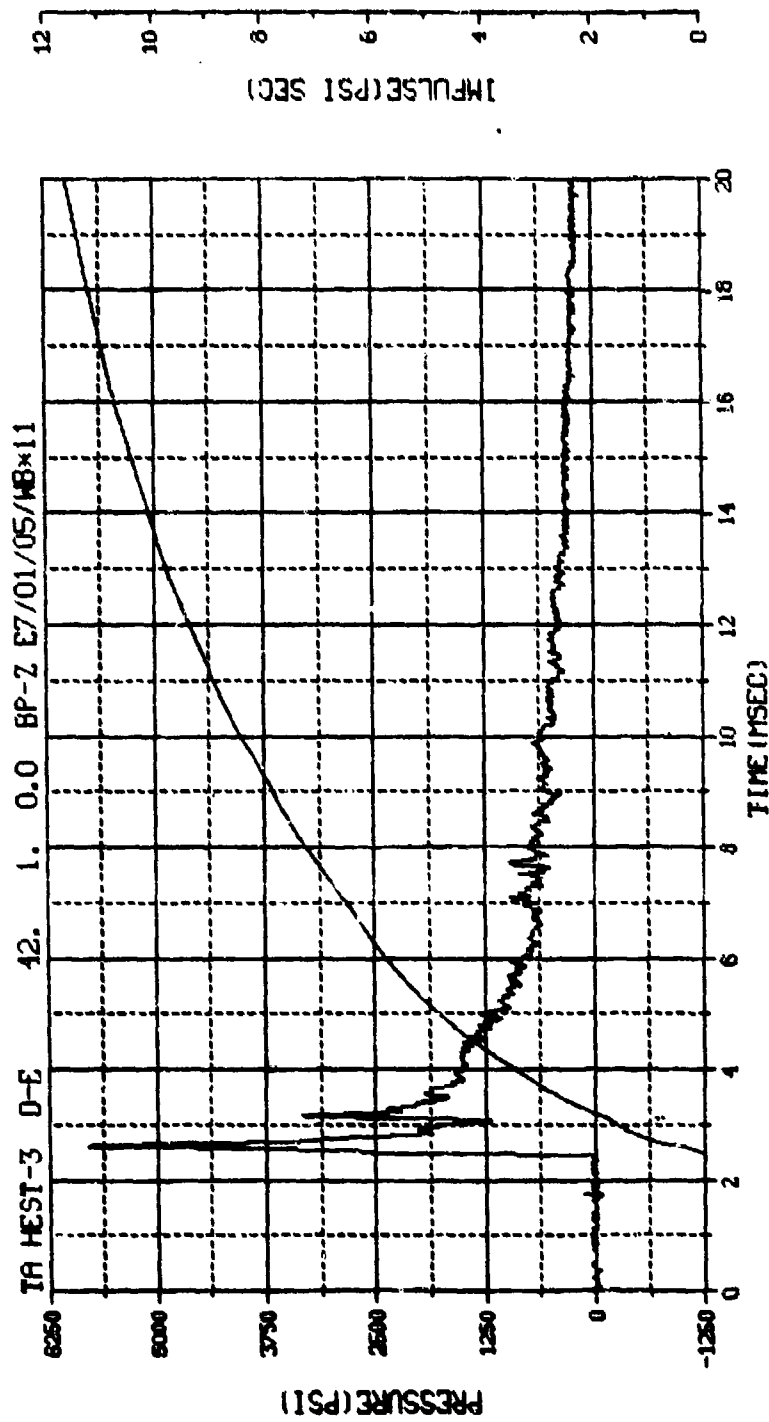
TA HEST-3 D-E 35. -1. 0.0 BP-Z E7/01/04/MB\*10



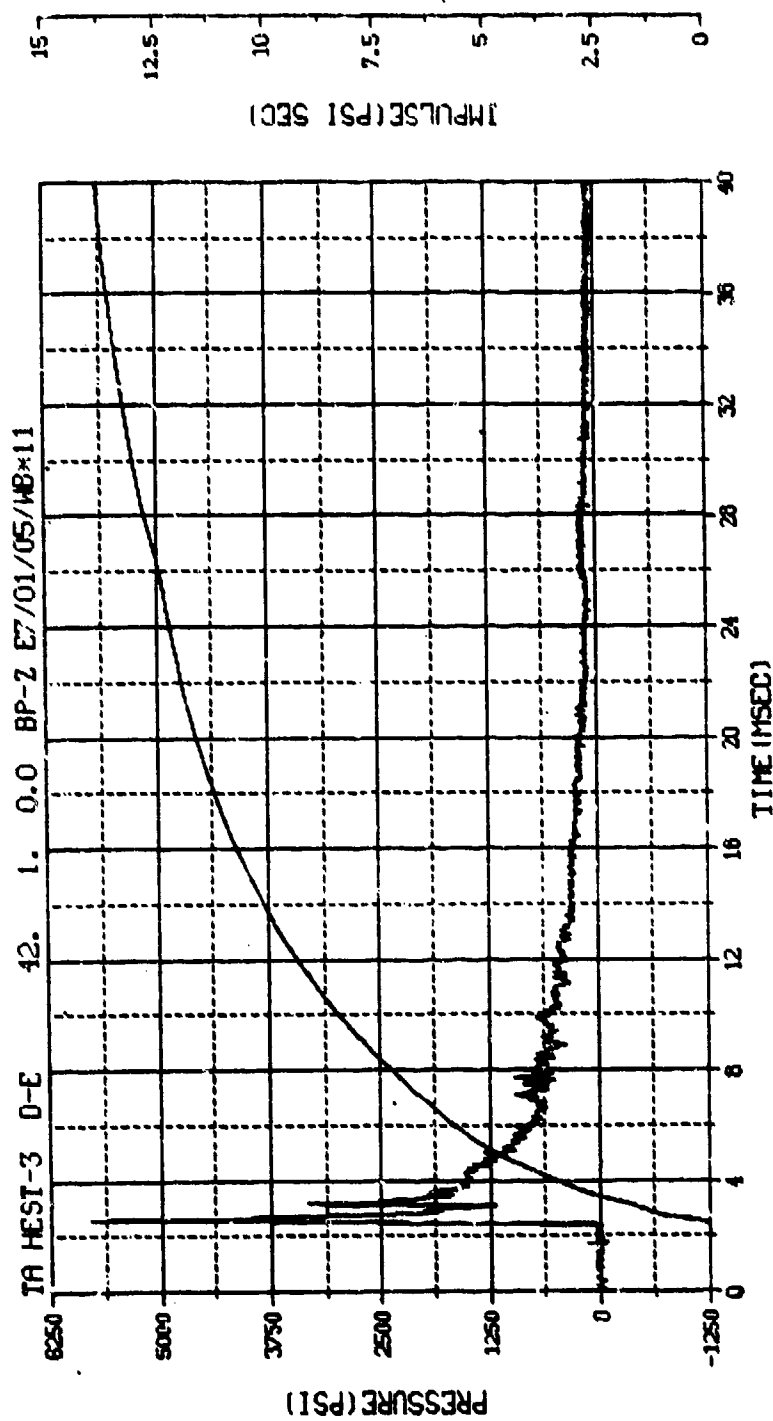
M.N. - 10	E.U. -0.000,6272.000	VSN-
TSKIP-12.640	DIGITS-0.000,834.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-8



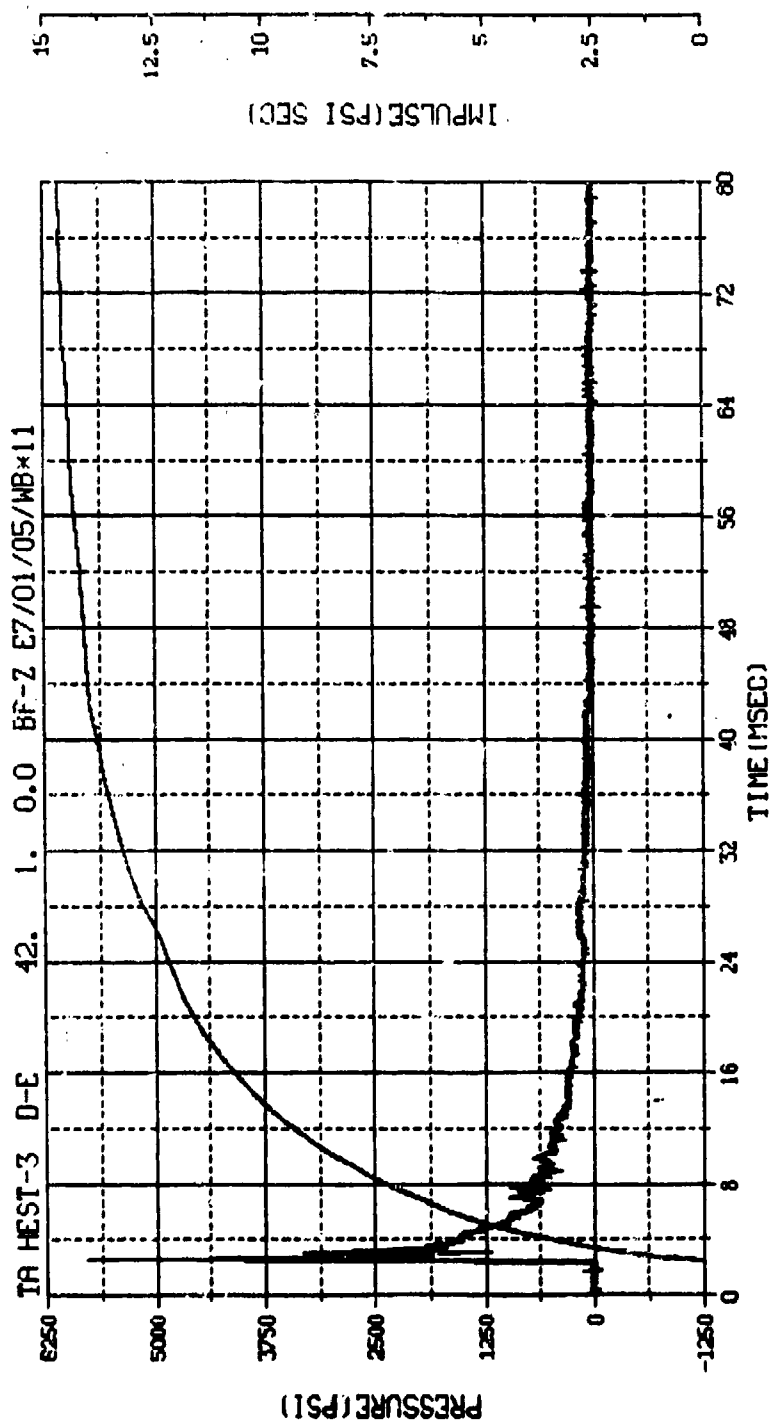
M.N. - 11	E.U. -0.000,4222.000	VSN-
TSKIP-12.640	DIGITS-0.000,602.500	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-10



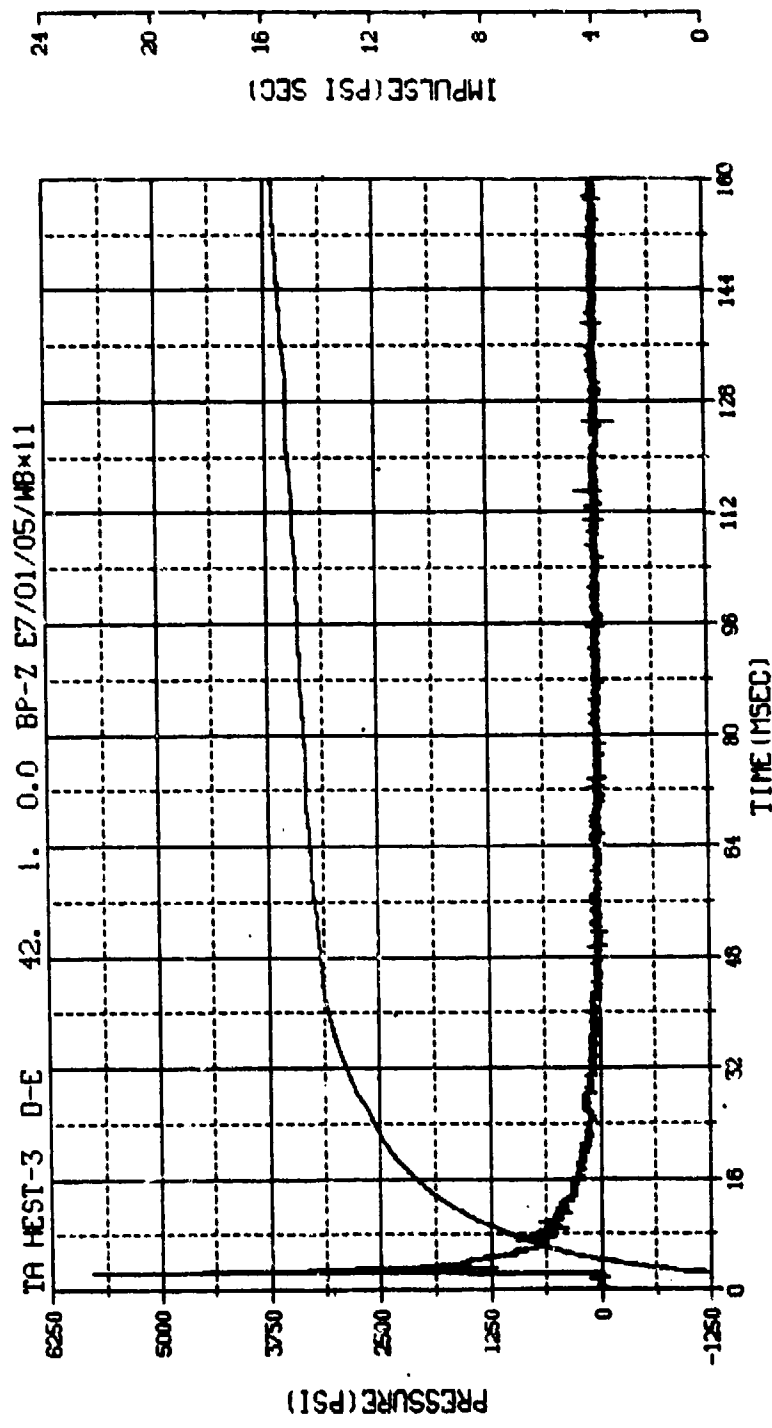
M.N. - 11	E.U. -0.000,4222.000	VSN-
TSKIP-12.640	DIGITS-0.000,602.500	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-10



M.N. - 11	E.U. -0.003, 4222.000	VSN-
TSKIP-12.640	DIGITS-0.000, 602.500	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-10

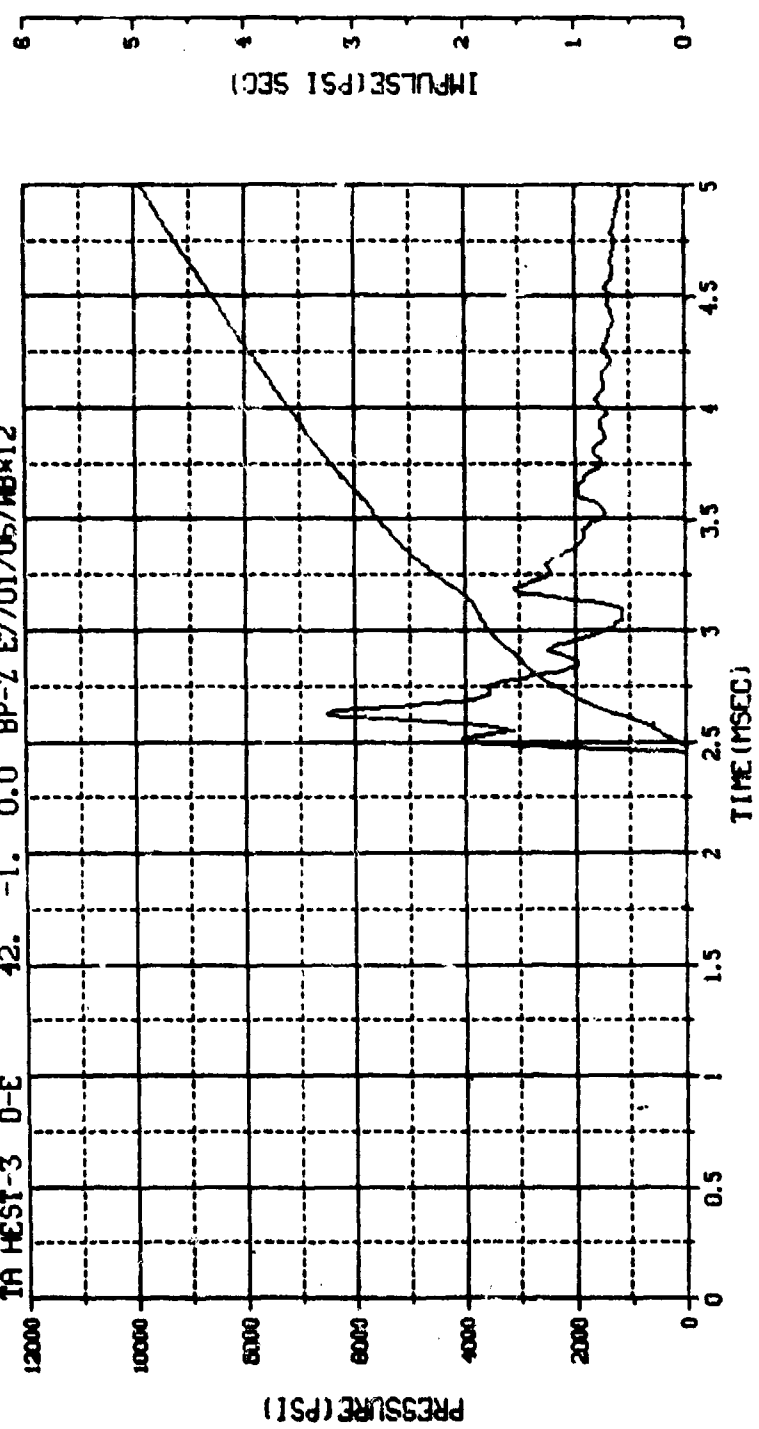


M.N. - 11	E.U. -0.000, 4222.000	VSN-
TSKIP-12.640	DIGITS-0.000, 602.500	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-10



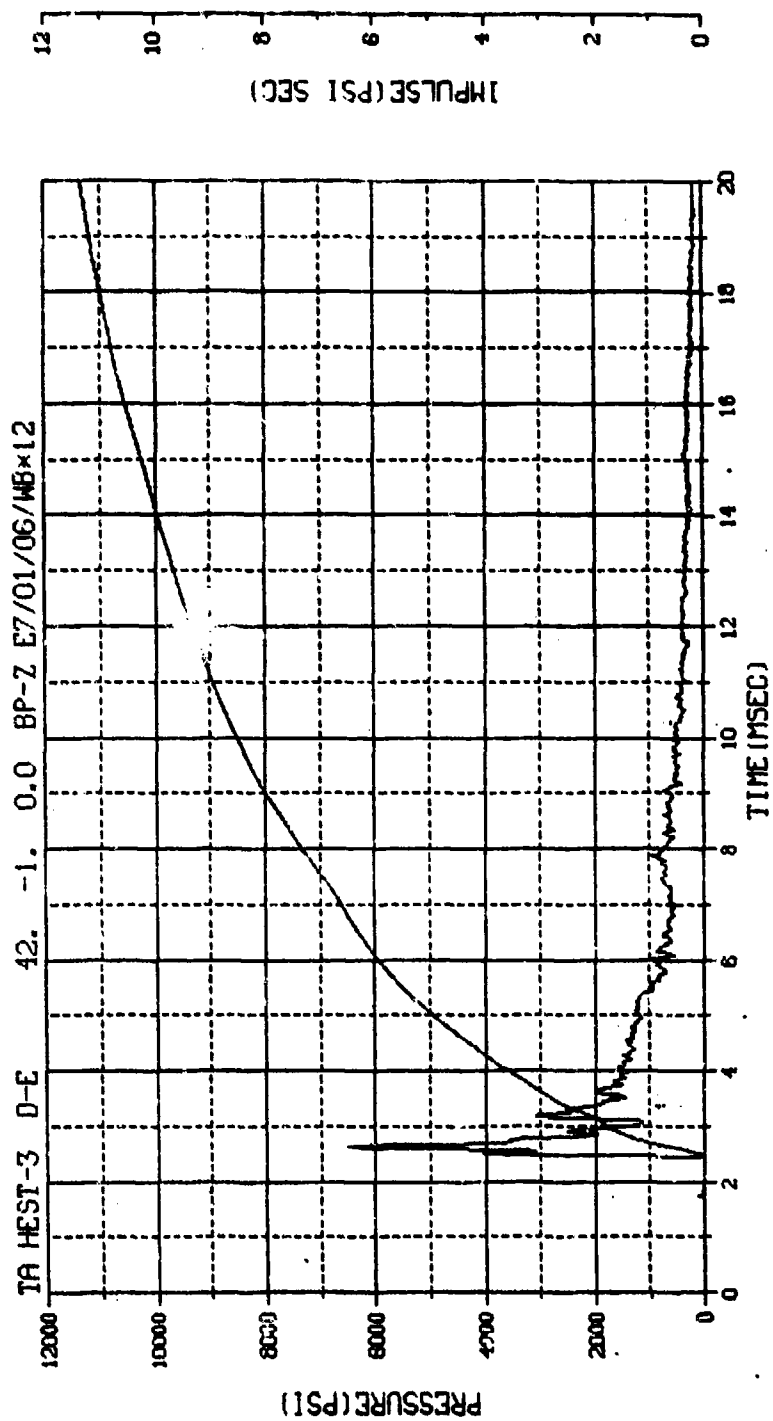
M.N. - 11	E.U. -0.000, 4222.000	VSN-
TSKIP-12.640	DIGITS-0.000, 602.500	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-10

TA HEST-3 D-E 42. -1. 0.0 BP-2 E7/01/06/MB\*12



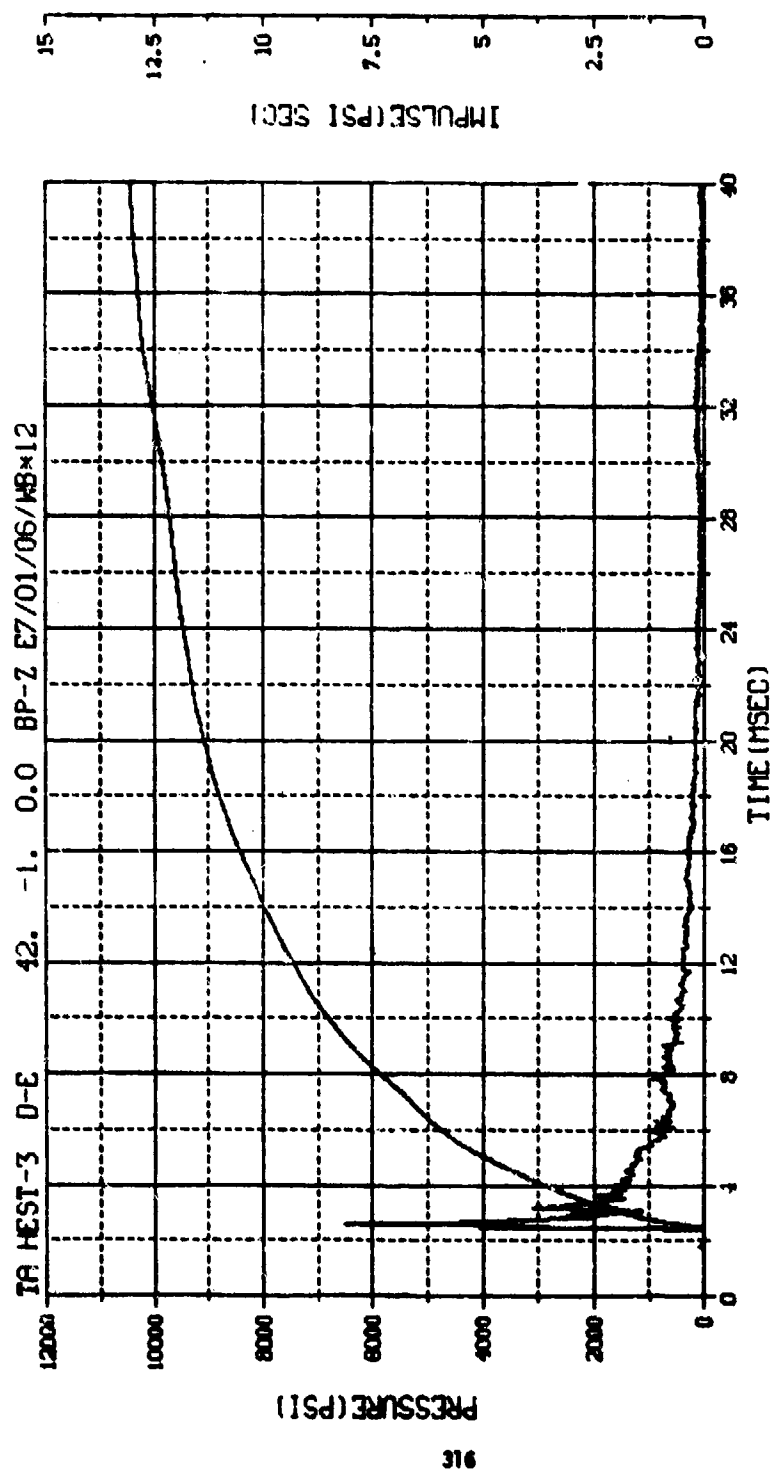
IMPULSE (PSI SEC)

M.N. - 12	E.U. -0.000,6372.000	VSN-
TSKIP-12.640	DIGITS-0.000,919.125	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-12

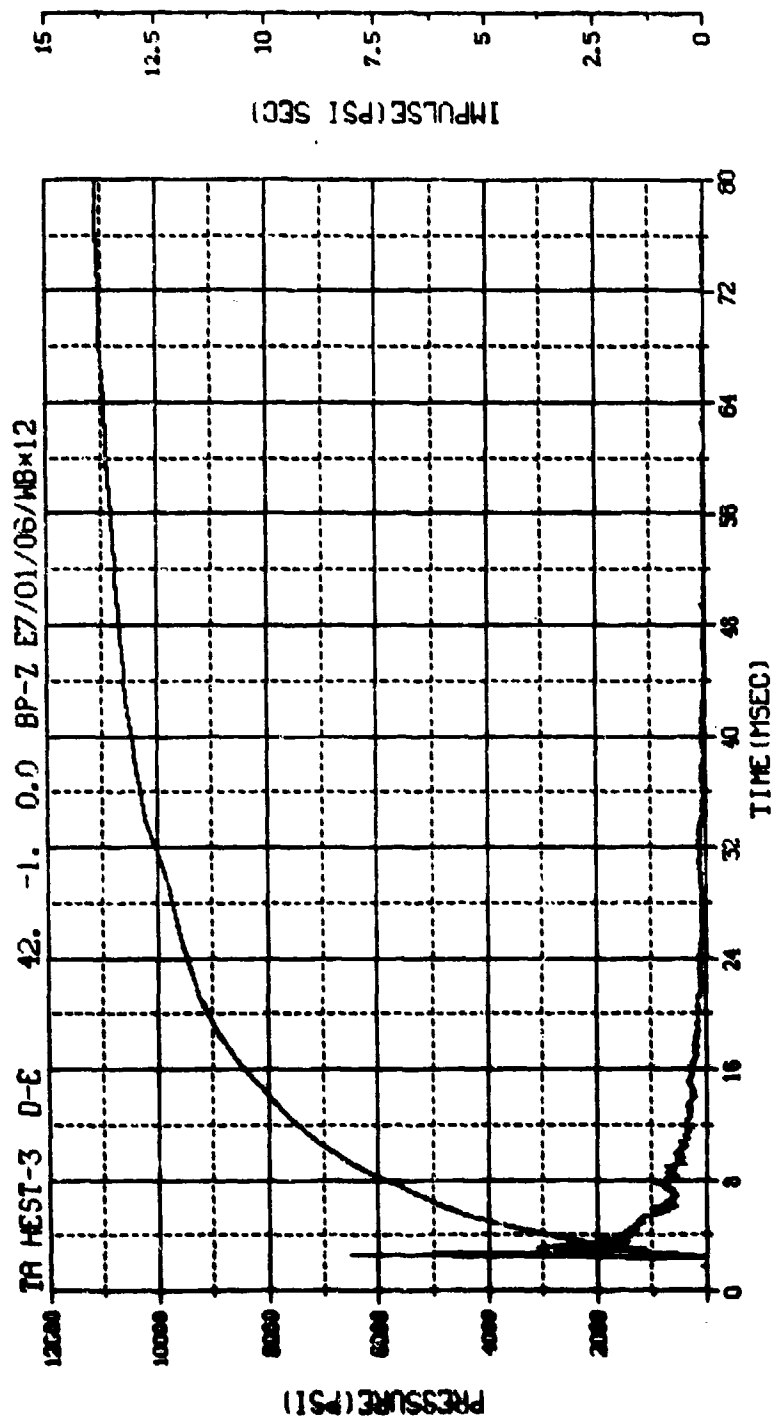


M.N. = 12 E.U. = -0.000,6372.000 VSN-  
 TSKIP-12.640 DIGITS-0.000,919.125 TAPE22  
 S.R. = 100.00 KHZ 8 50 AM, 2 MAY 78. FILE-12



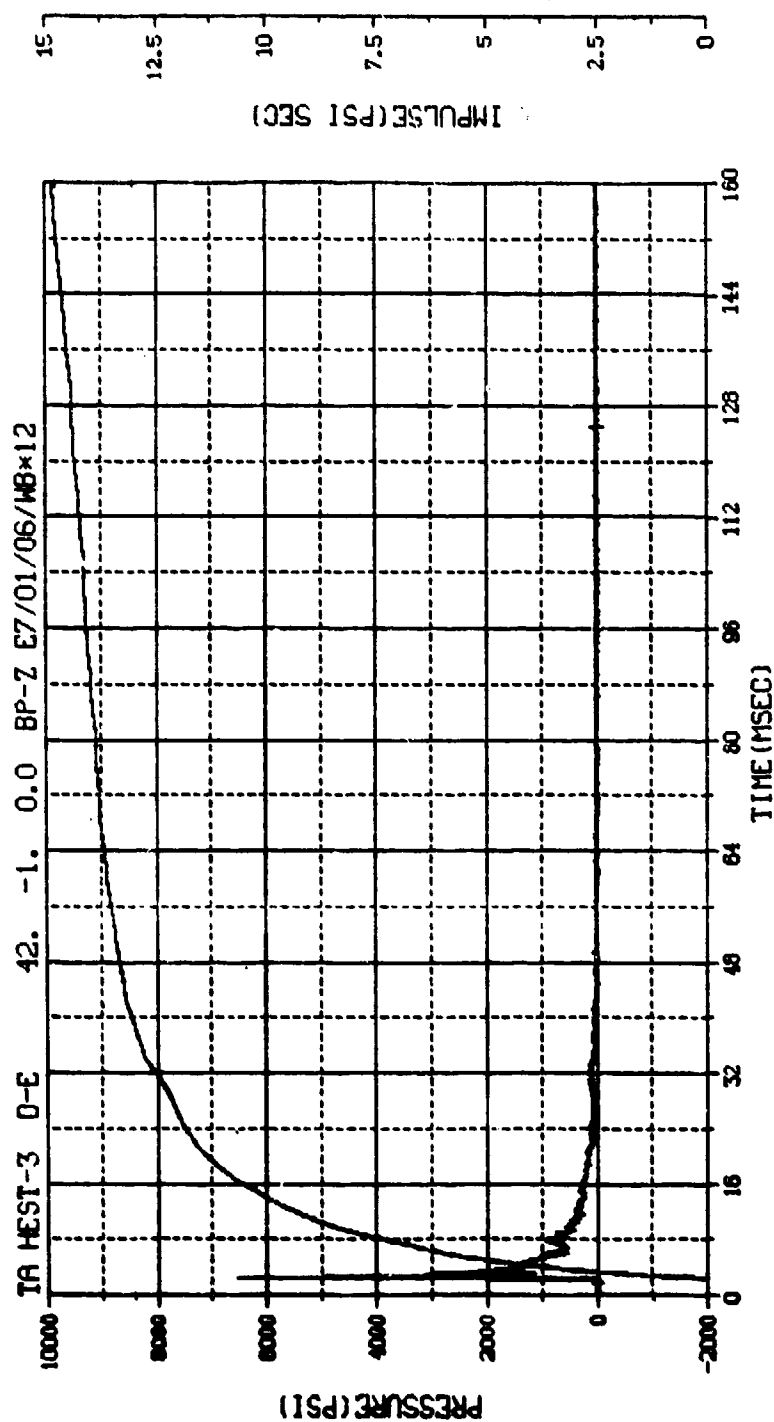


M.N. = 12	E.U. = -0.000,6372.000	VSN =
TSKIP = 12.640	DIGITS = 0.000,919.125	TAPE 22
S.R. = 100.00 KHZ	8 50 AM, 2 MAY 78.	FILE = 12

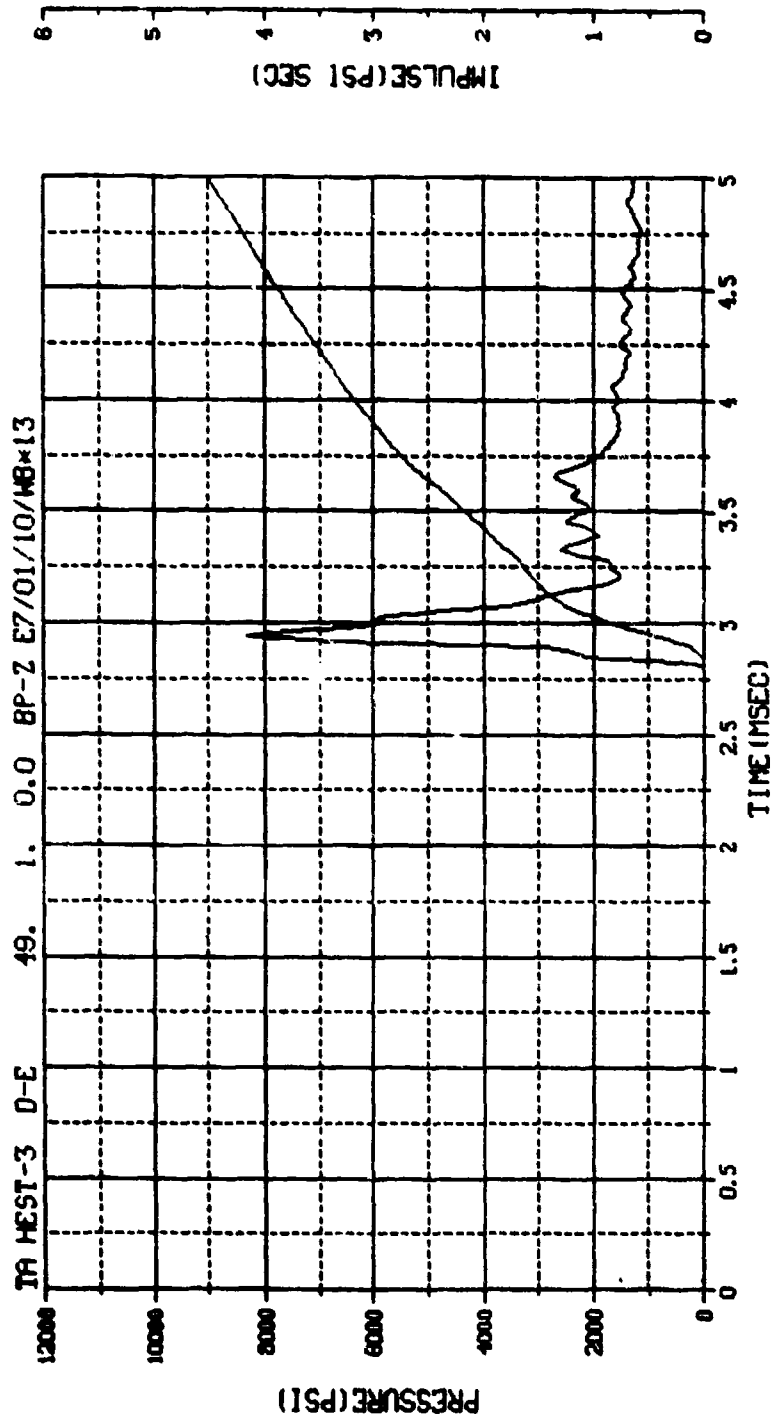


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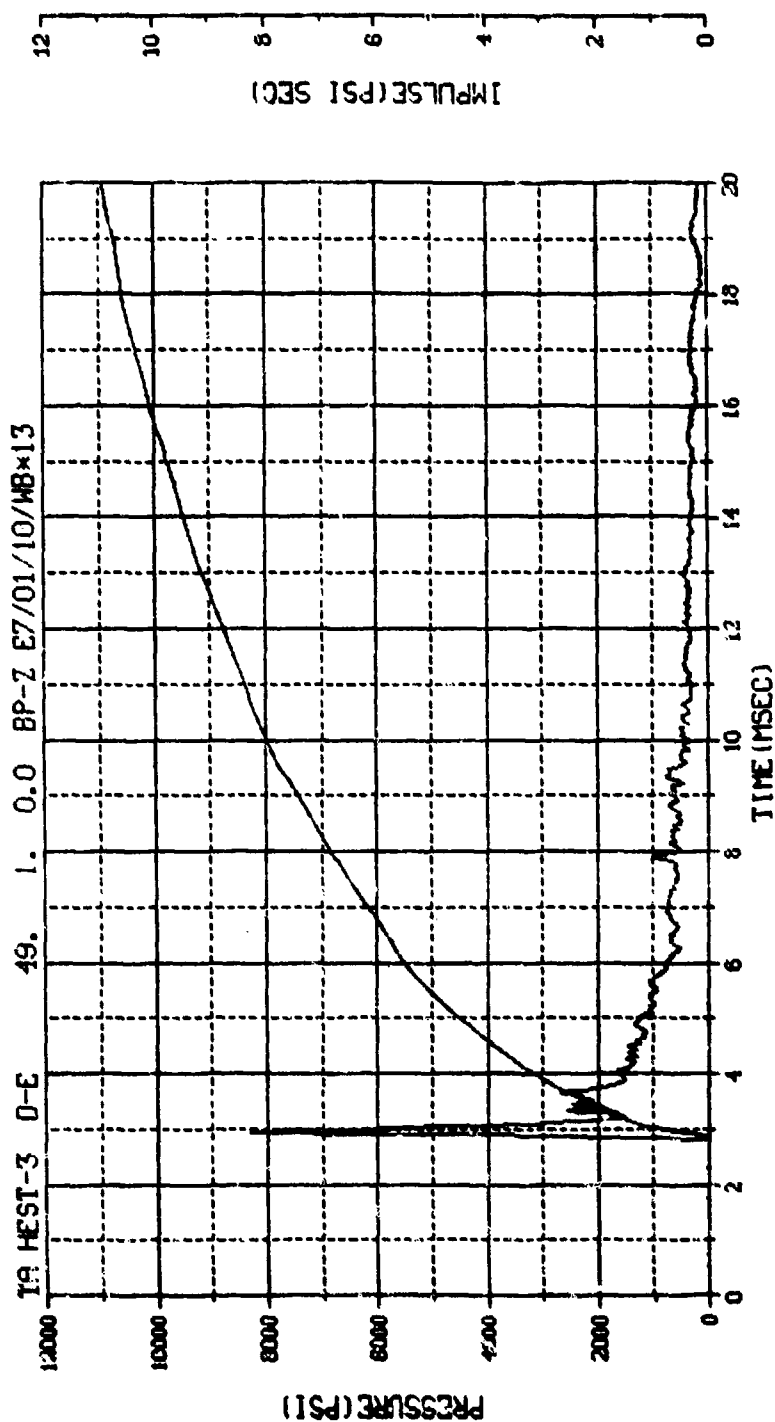
M.N. - 12	E.U. -0.000,6372.000	VSN-
TSKIP-12.640	DIGITS-0.000,919.125	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-12



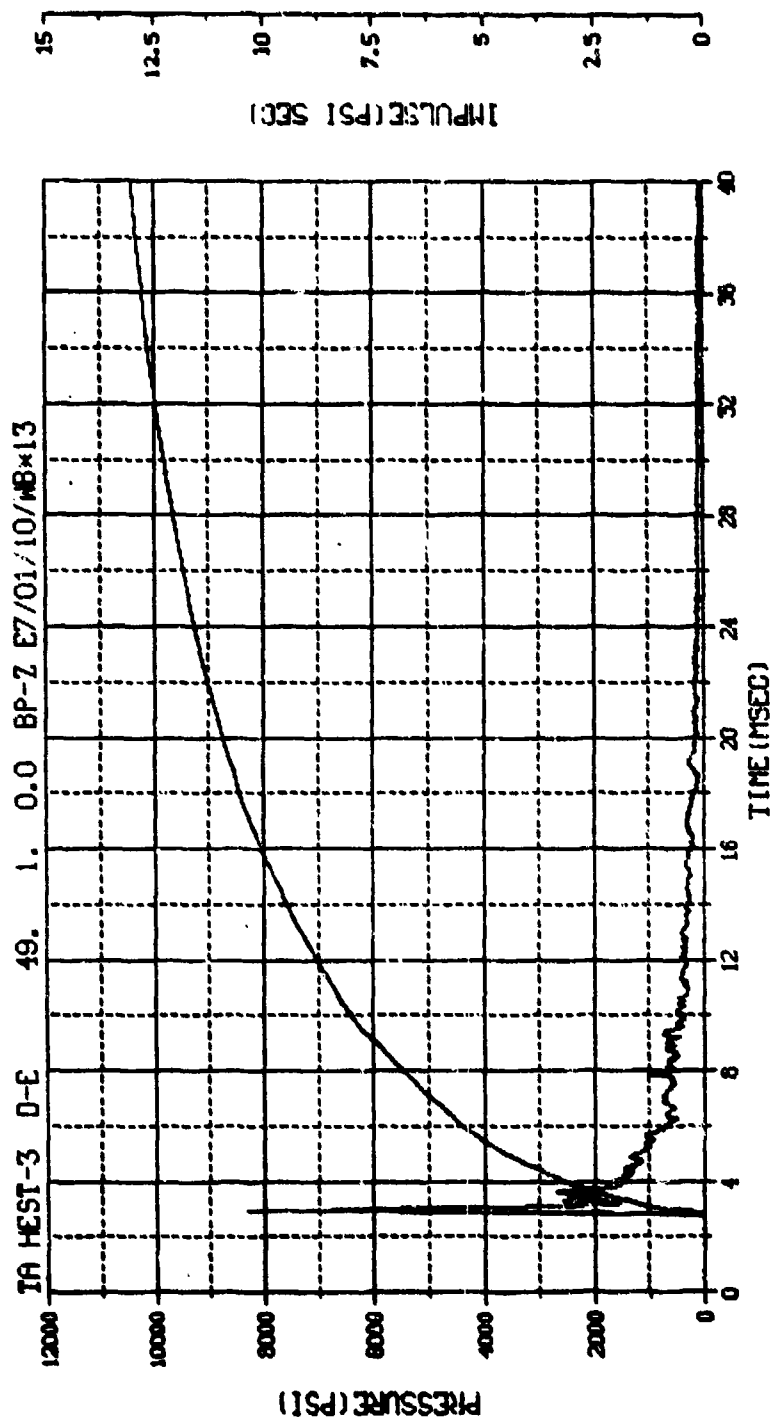
M.N. - 12	E.U. -0.000,6372.000	VSN-
TSKIP-12.640	DIGITS-0.000,919.125	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-12



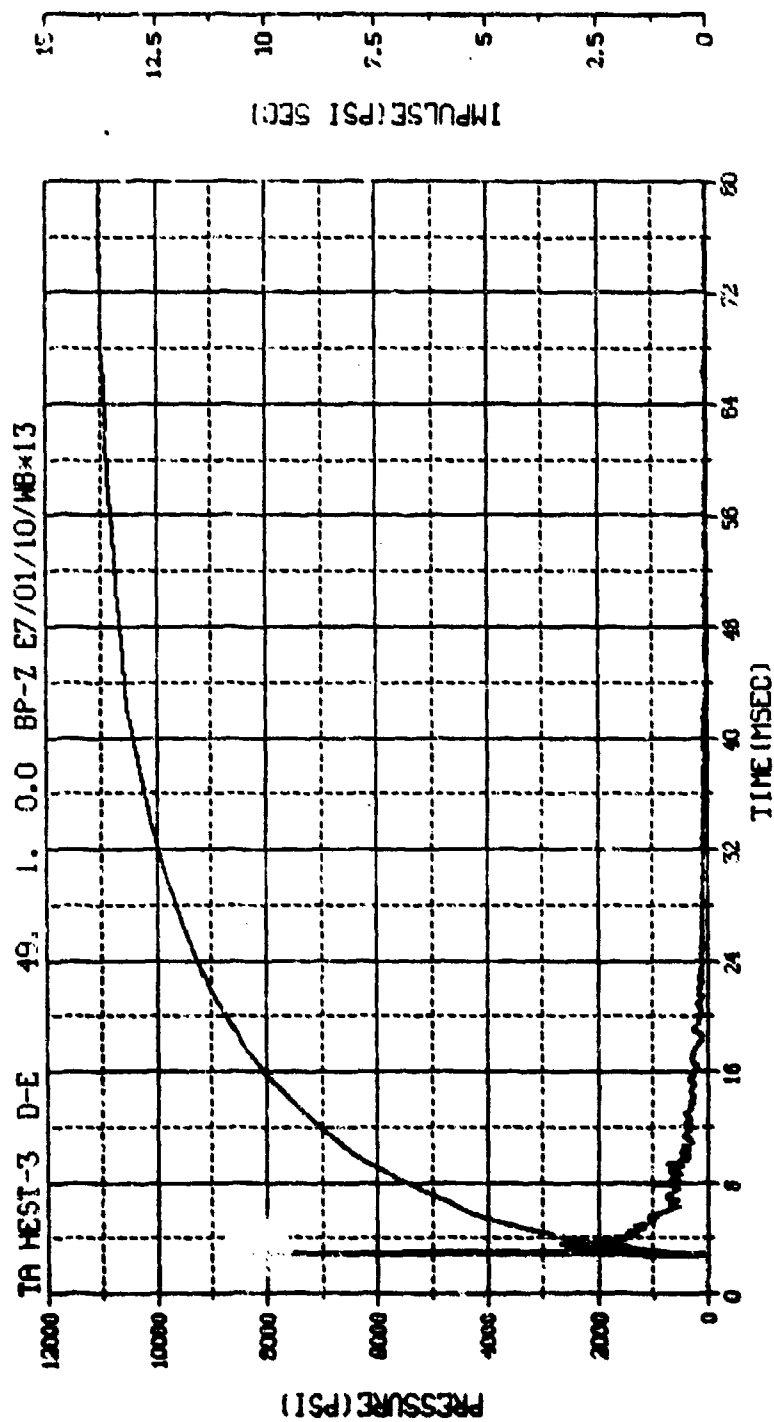
M.N. - 13	E.U. -0.000,6602.000	VSN-
TSKIP-12.640	DIGITS-0.000,970.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-14



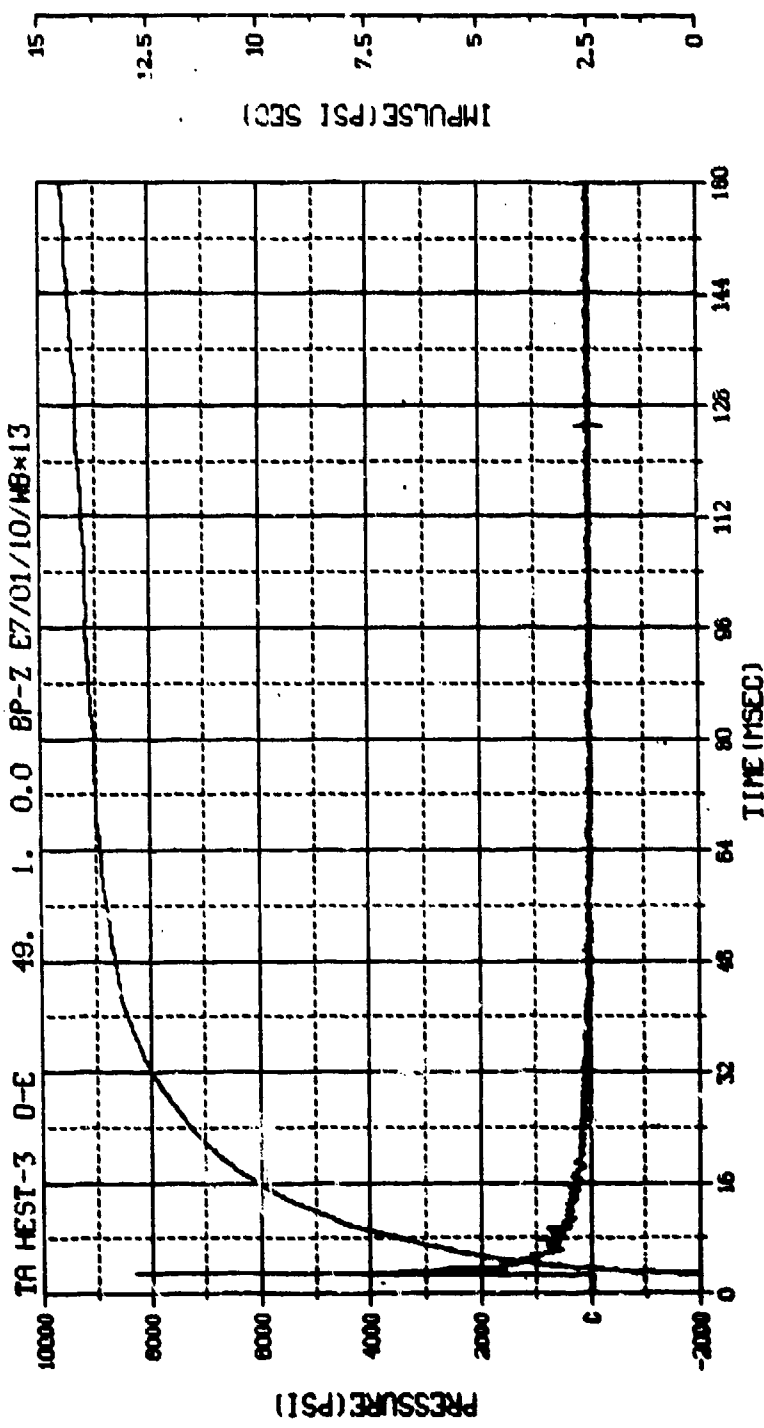
M.N. = 13	E.U. -0.000,6602.000	VSN-
TSKIP-12.640	DIGITS-0.000,970.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-14



M.N. - 13	E.U. -0.000,6602.000	VSN-
TSKIP-12.640	DIGITS-0.000,970.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-14

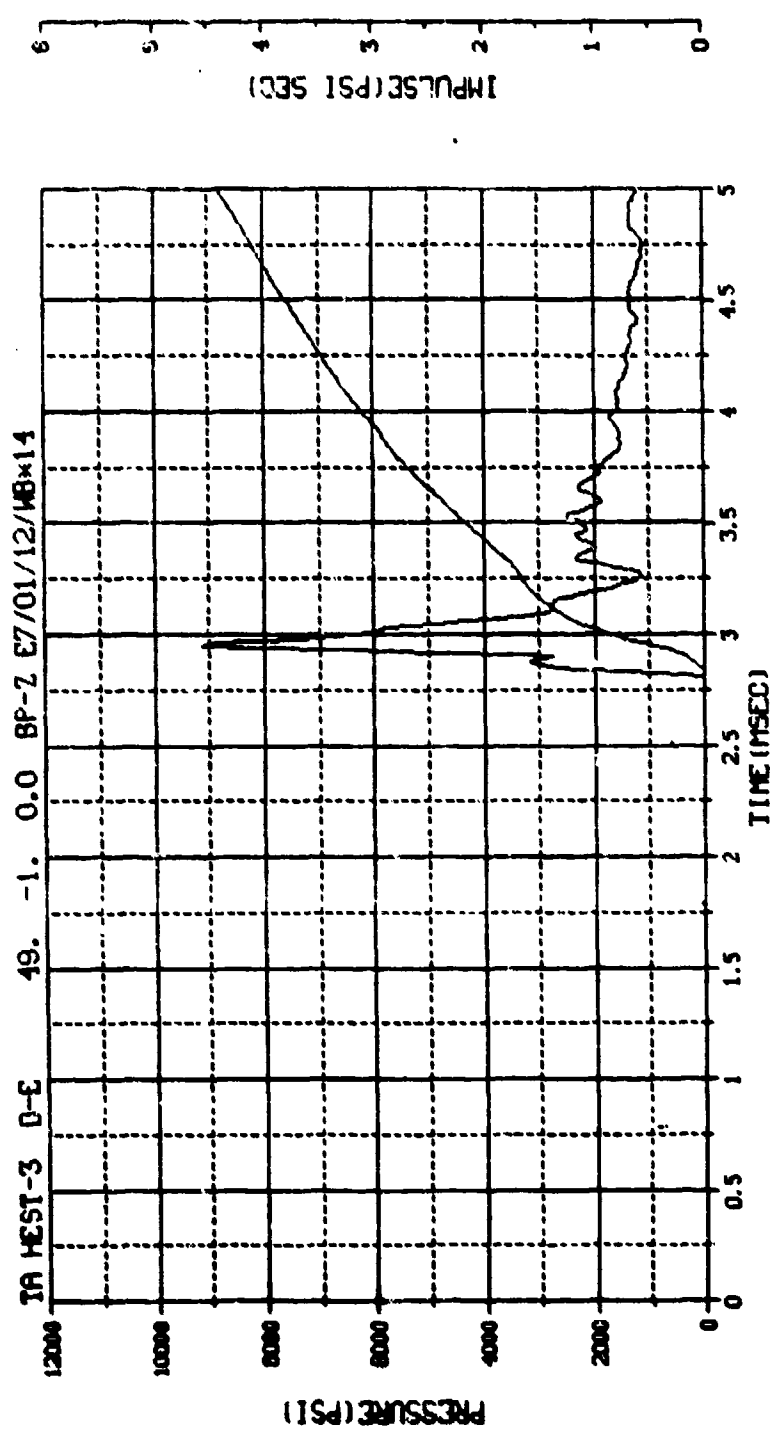


M.N. - 13 E.U. -0.000,6602.000 VSN-  
 TSKIP-12.640 DIGITS-0.000,970.000 TAPE22  
 S.R. -100.00 KHZ 8 50 AM, 2 MAY 78. FILE-14

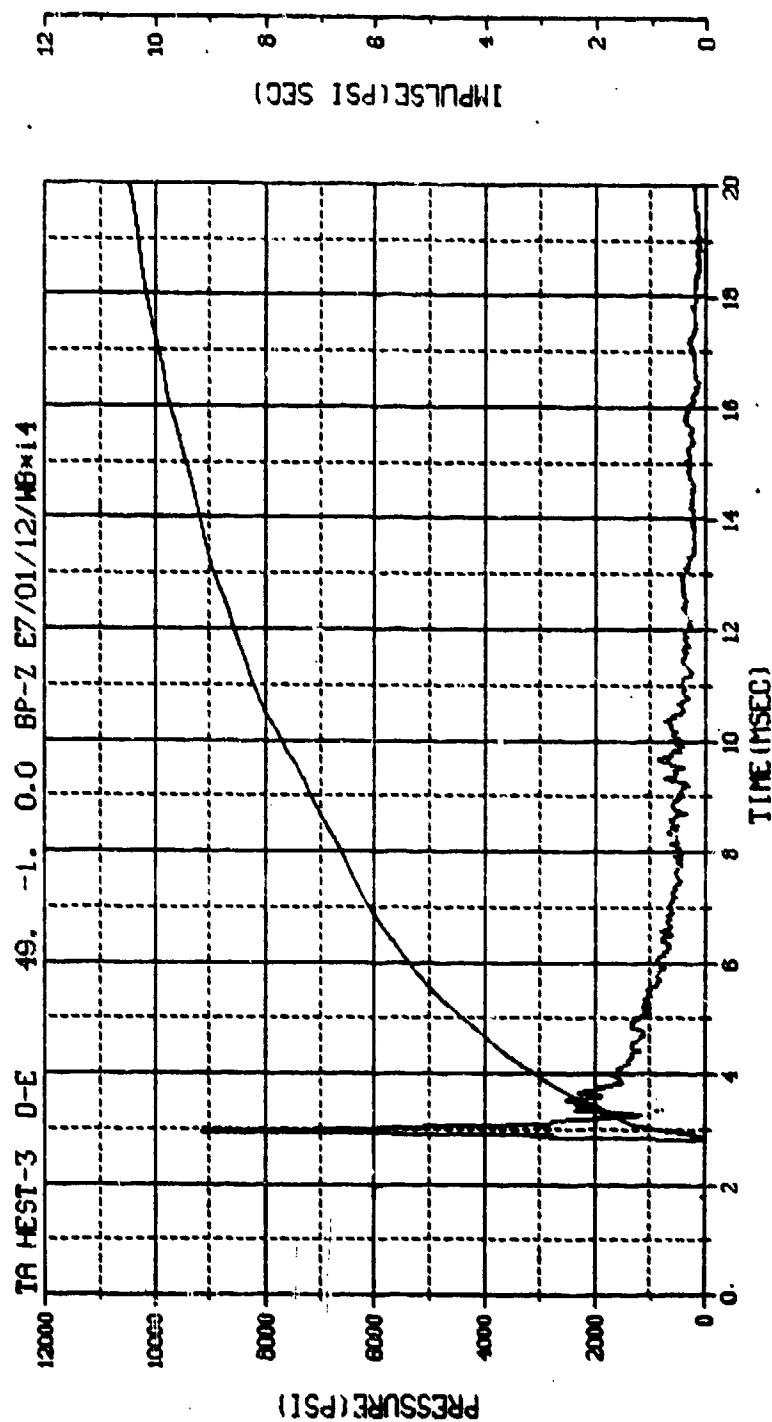


M.N. - 13	E.U. -0.000,6602.000	VSN-
TSKIP-12.640	DIGITS-0.000,970.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-14

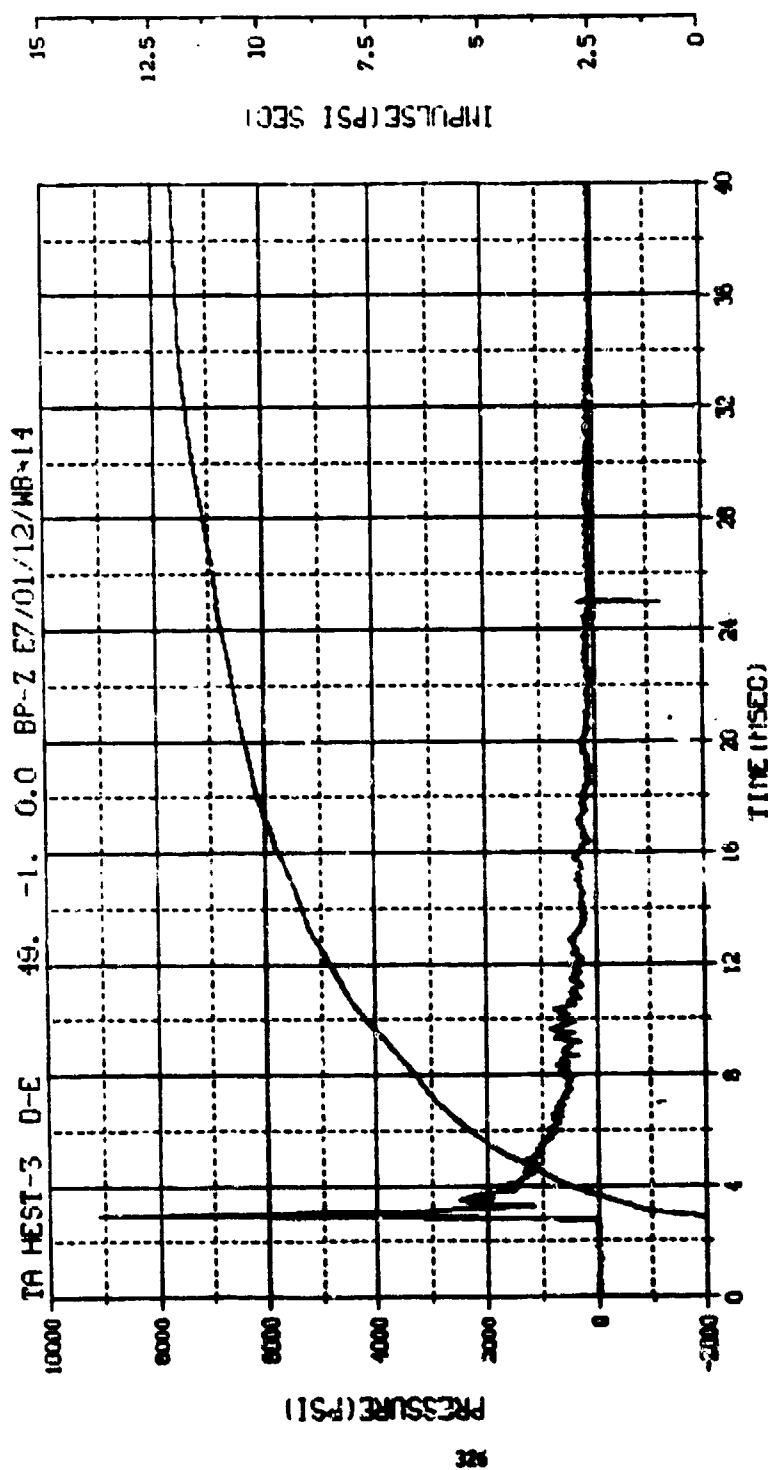




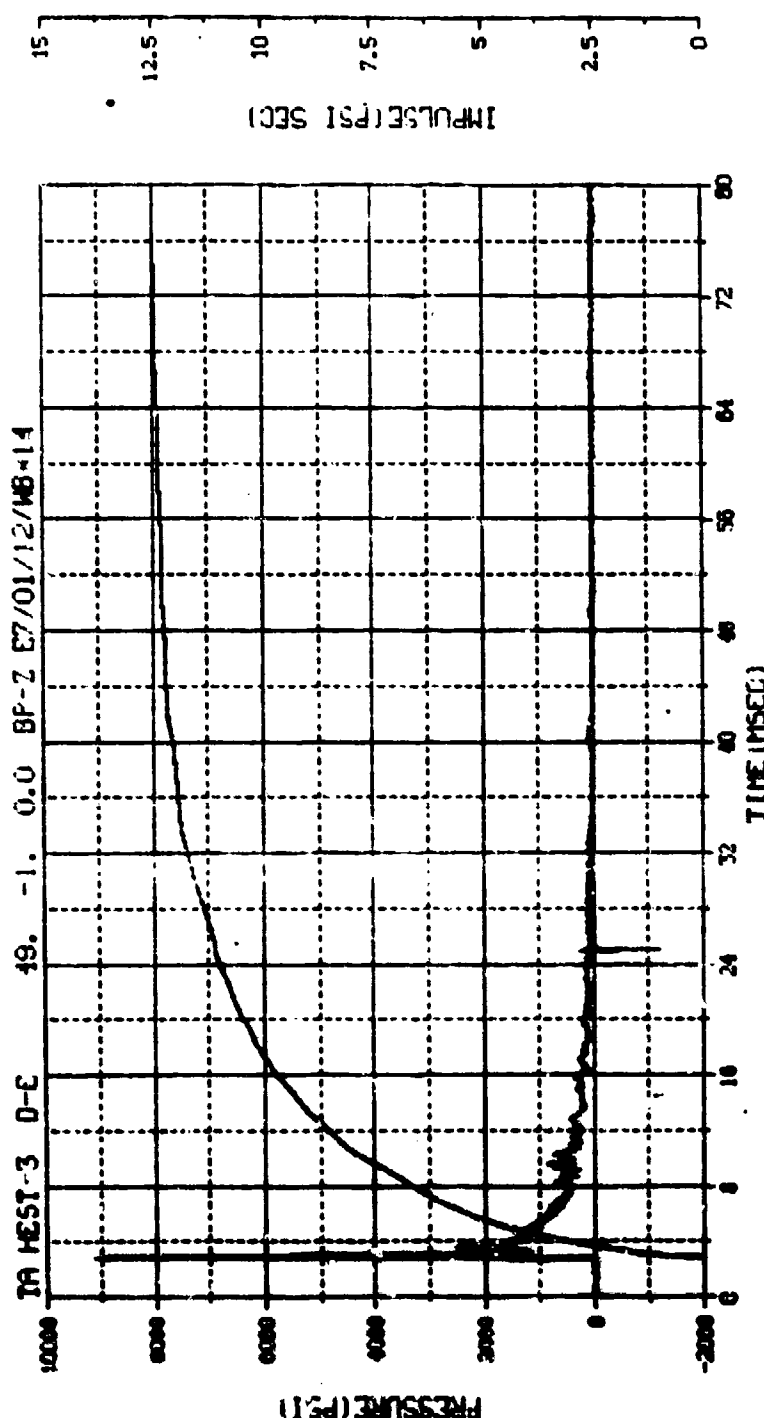
M.N. - 14	E.U. -0.000,6965.000	VSN-
TSKIP-12.640	DIGITS-0.000,1002.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-18



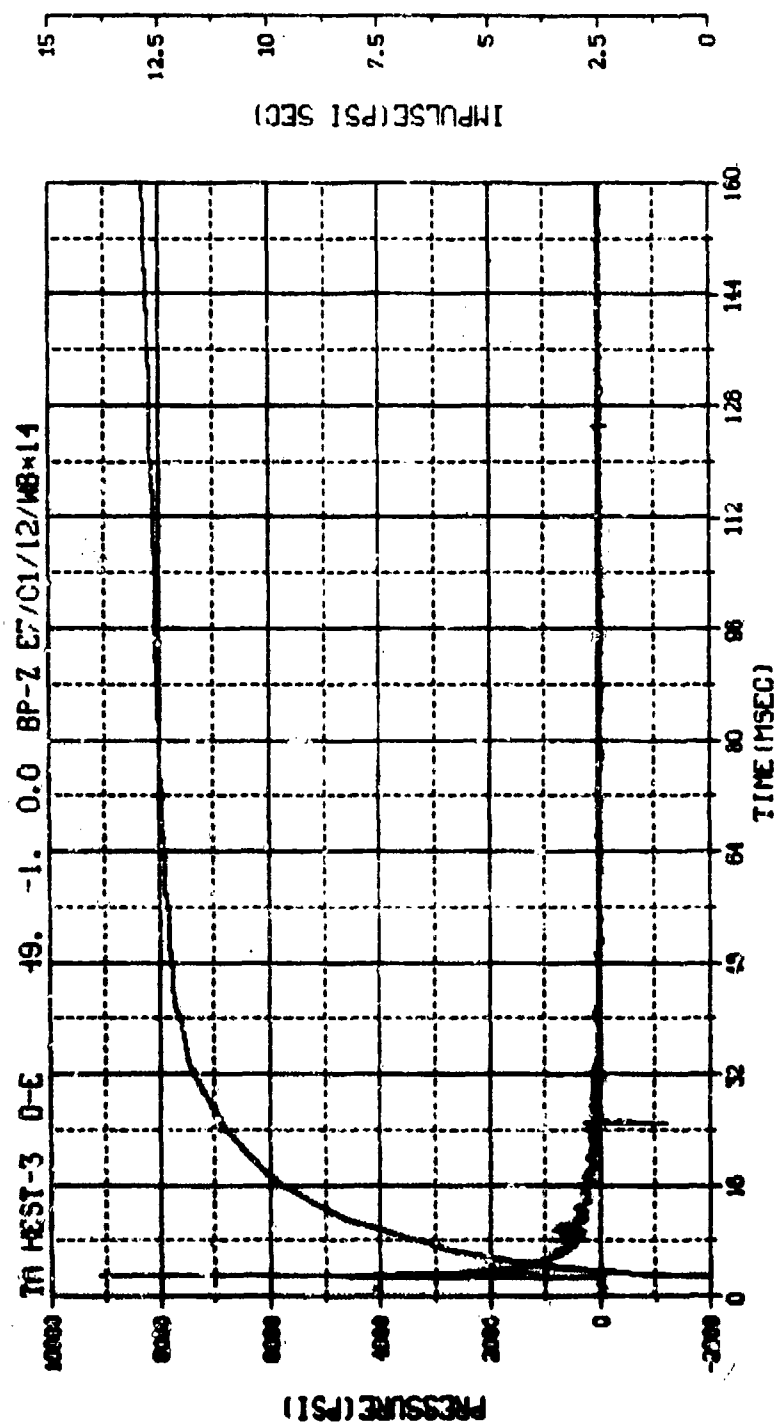
M.N. - 14	E.U. -0.000,6965.000	VSN-
TSKIP-12.640	DIGITS-0.000,1002.000	TAPE22
S.R. -100.00 KHZ	8 50 PW, 2 MAY 78.	FILE-18



M.N. - 14	E.U. -0.000,6965.000	VSN-
TSKIP-12.640	DIGITS-0.000,1002.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-18

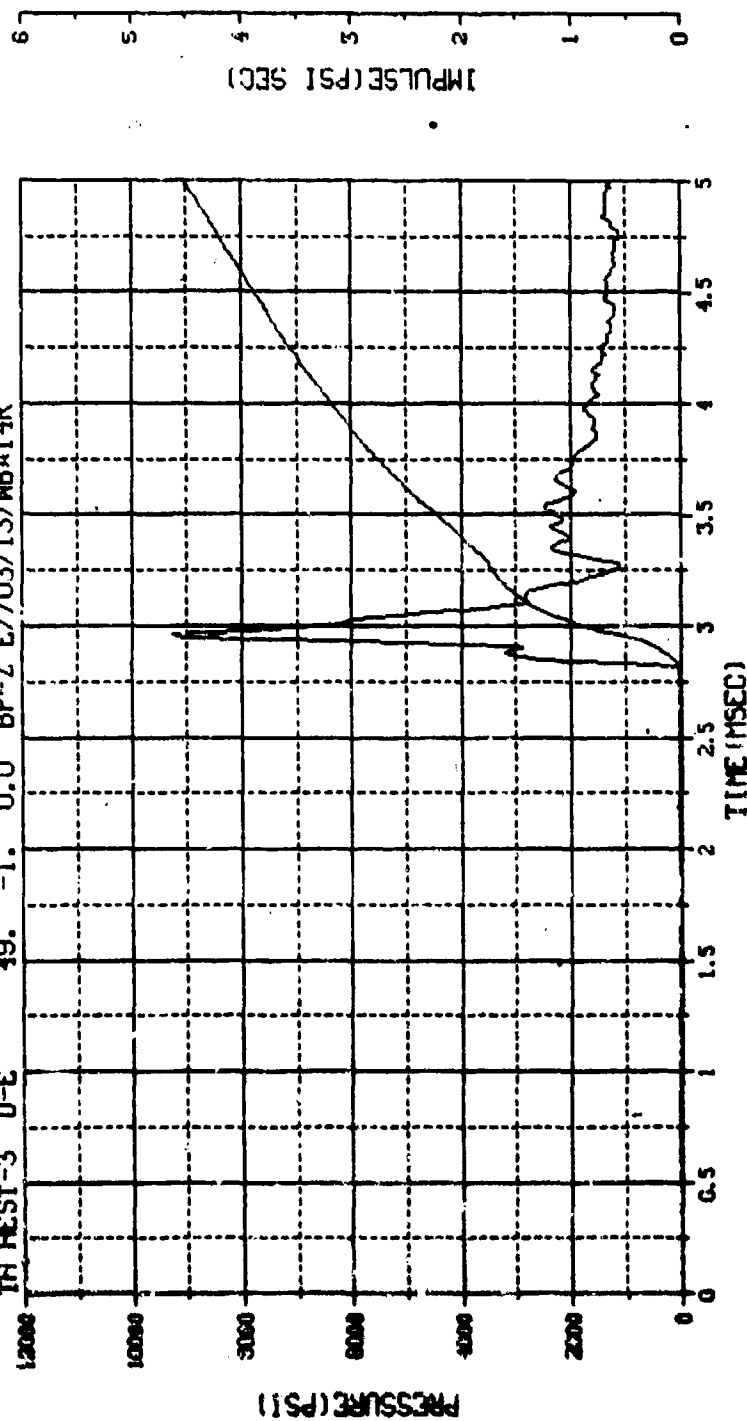


M.N. - 14	E.U. -0.000,6965.000	VSN-
TSK(P-12.640	DIGITS-0.000,1002.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-18

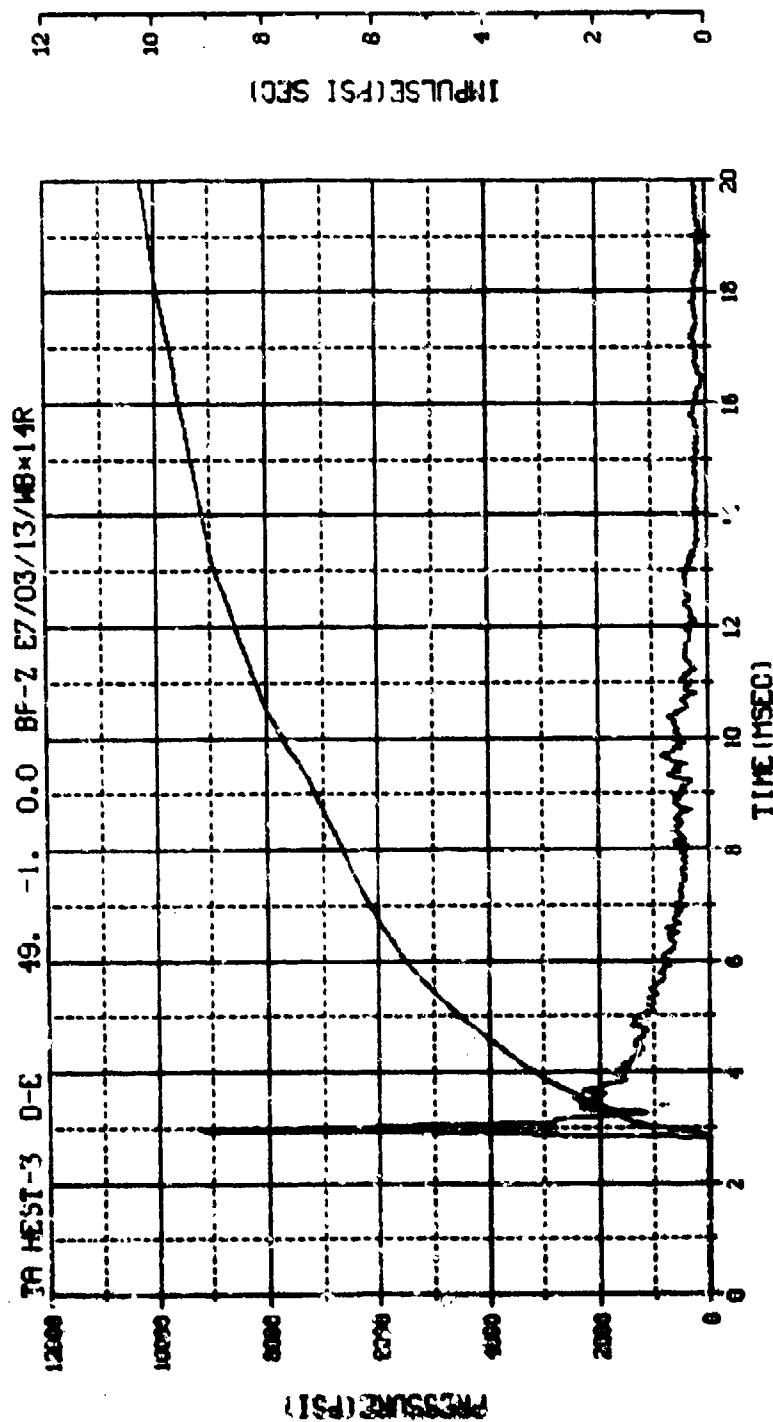


M.N. - 14	E.U. -0.000,6965.000	VSN-
TSKIP-12.640	DIGITS-0.000,1002.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-18

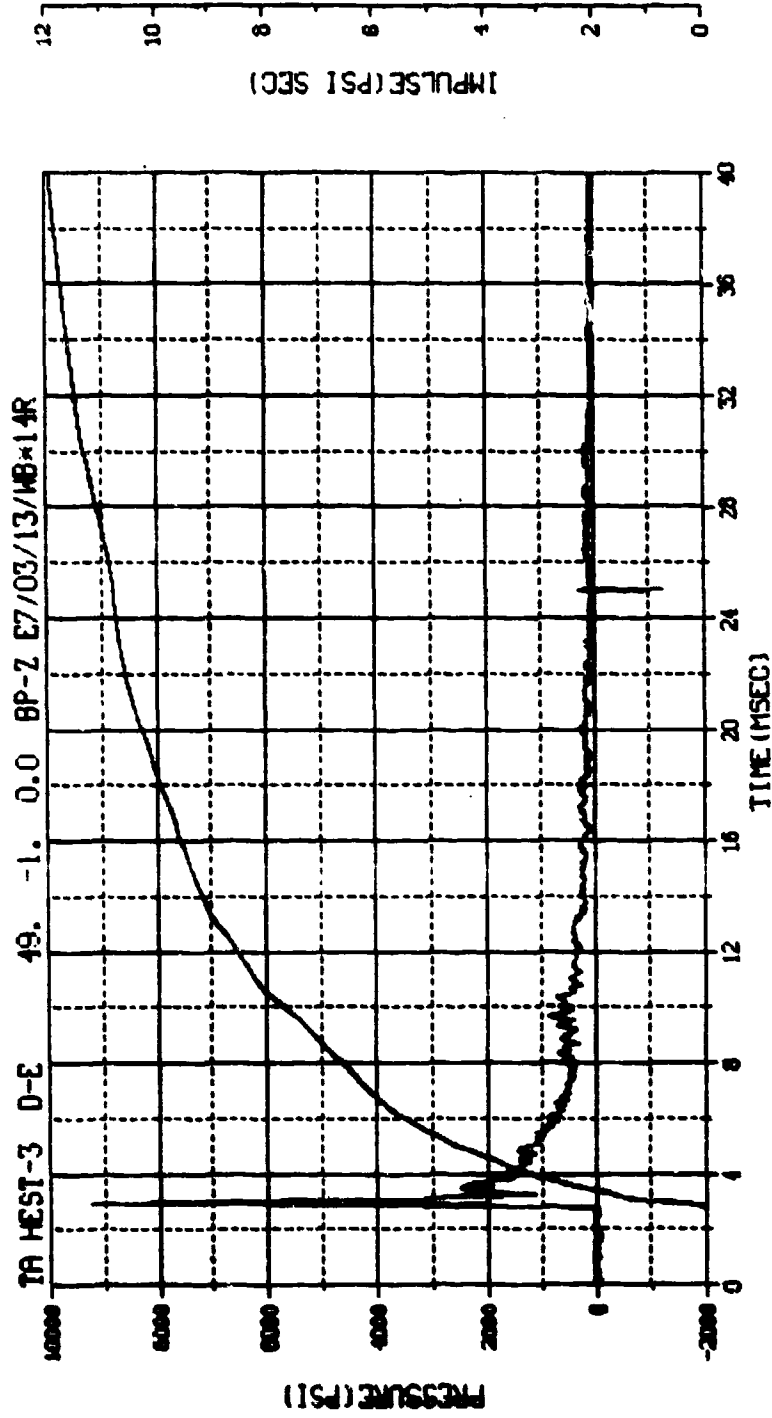
TA HEST-3 D-E 49. -1. 0.0 BP-Z E7/03/13/WBx14R



M.N. - 14	E.U. -0.000,6965.000	VSN-
TSKIP-12.640	DIGITS-0.000,614.250	TAPE22
S.R. -100.00 KHZ	8 50 PM, 2 MAY 78.	FILE-28



M.N. - 14	E.U. -0.000,6965.000	VSN-
TSKIP-12.640	DIGITS-0.000,614.250	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-28

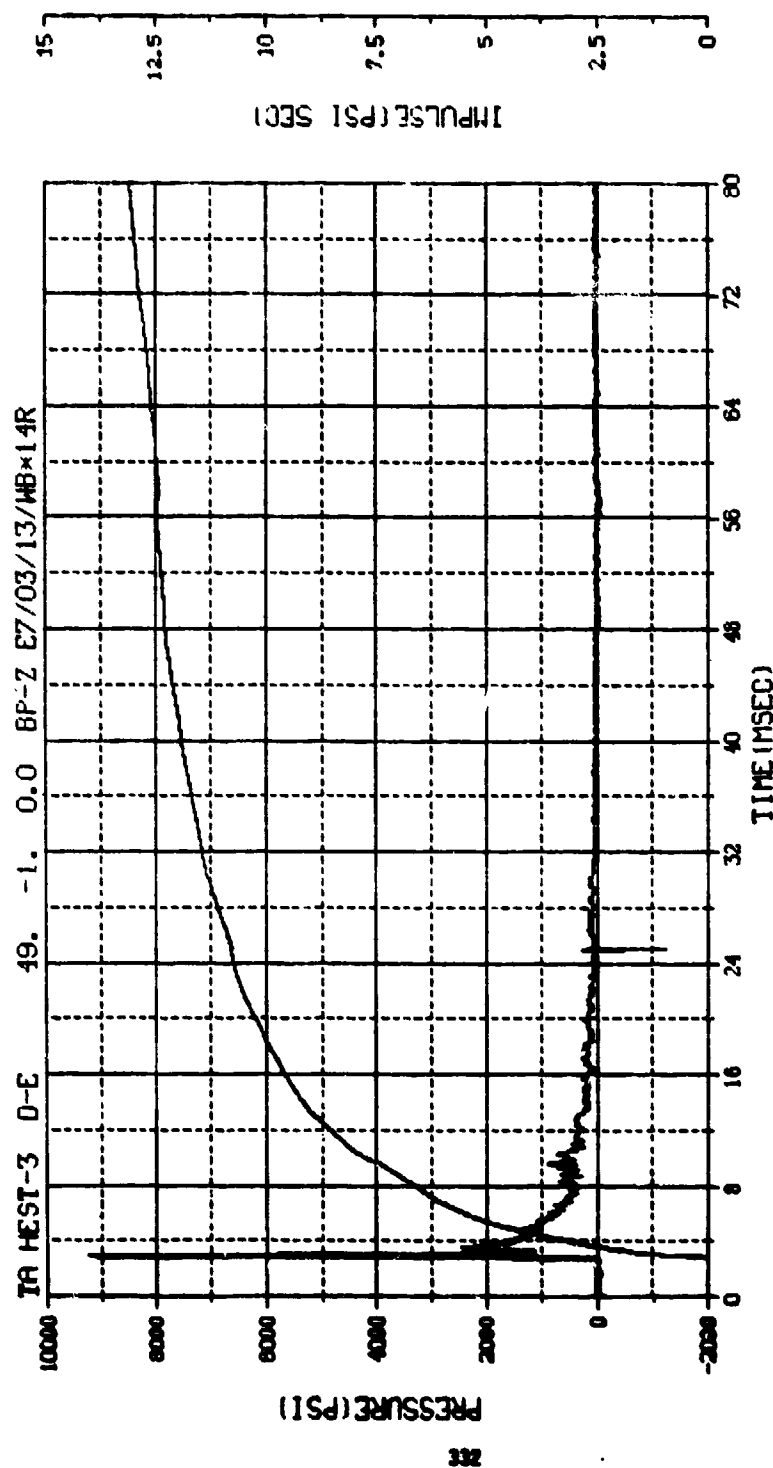


IMPULSE (PSI SEC)

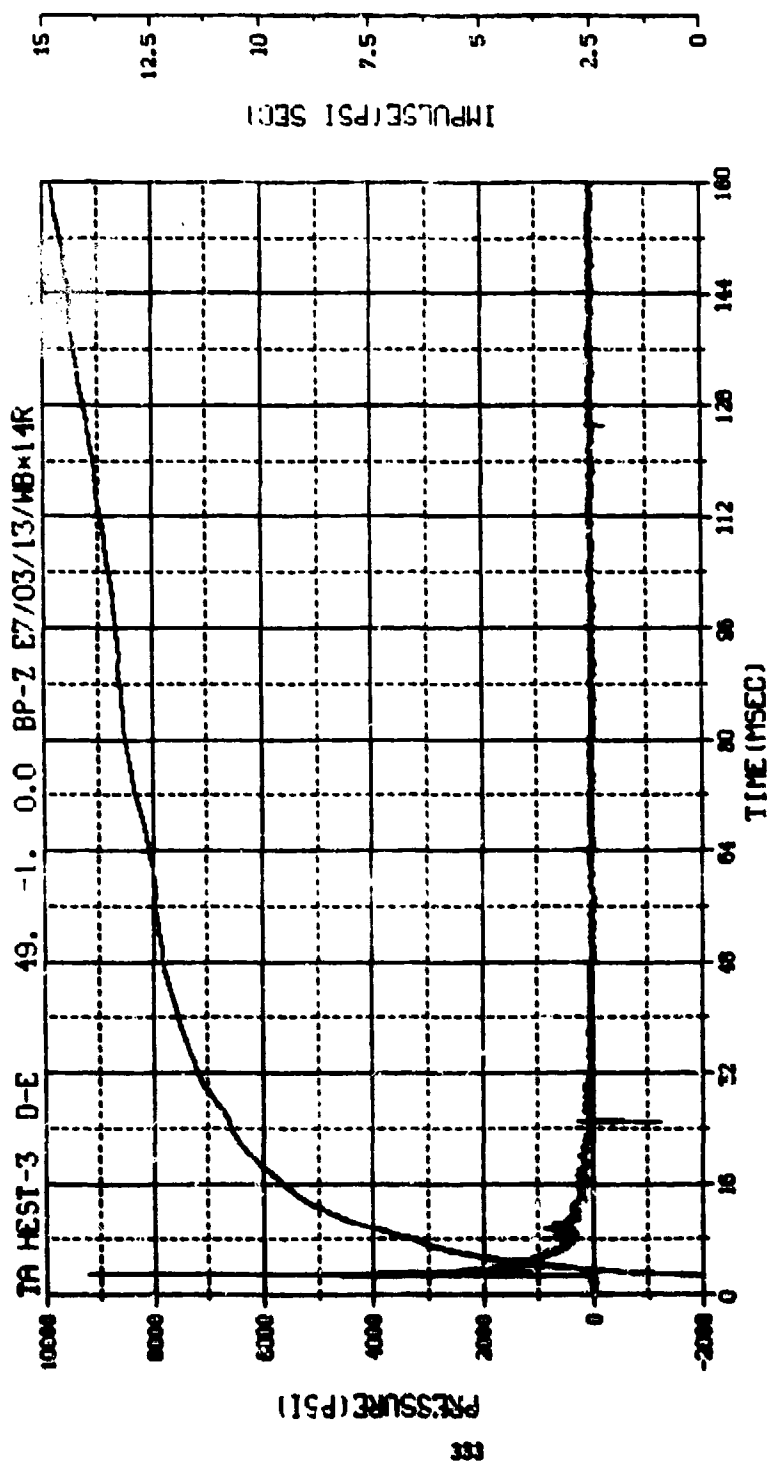
12  
10  
8  
6  
4  
2  
0

M.N. - 14 E.U. -0.000,6965.000 VSN-  
TSKIP-12.640 DIGITS-0.000,614.250 TAPE22  
S.R. -100.00 KHZ 8 50 AM, 2 MAY 78. FILE-28



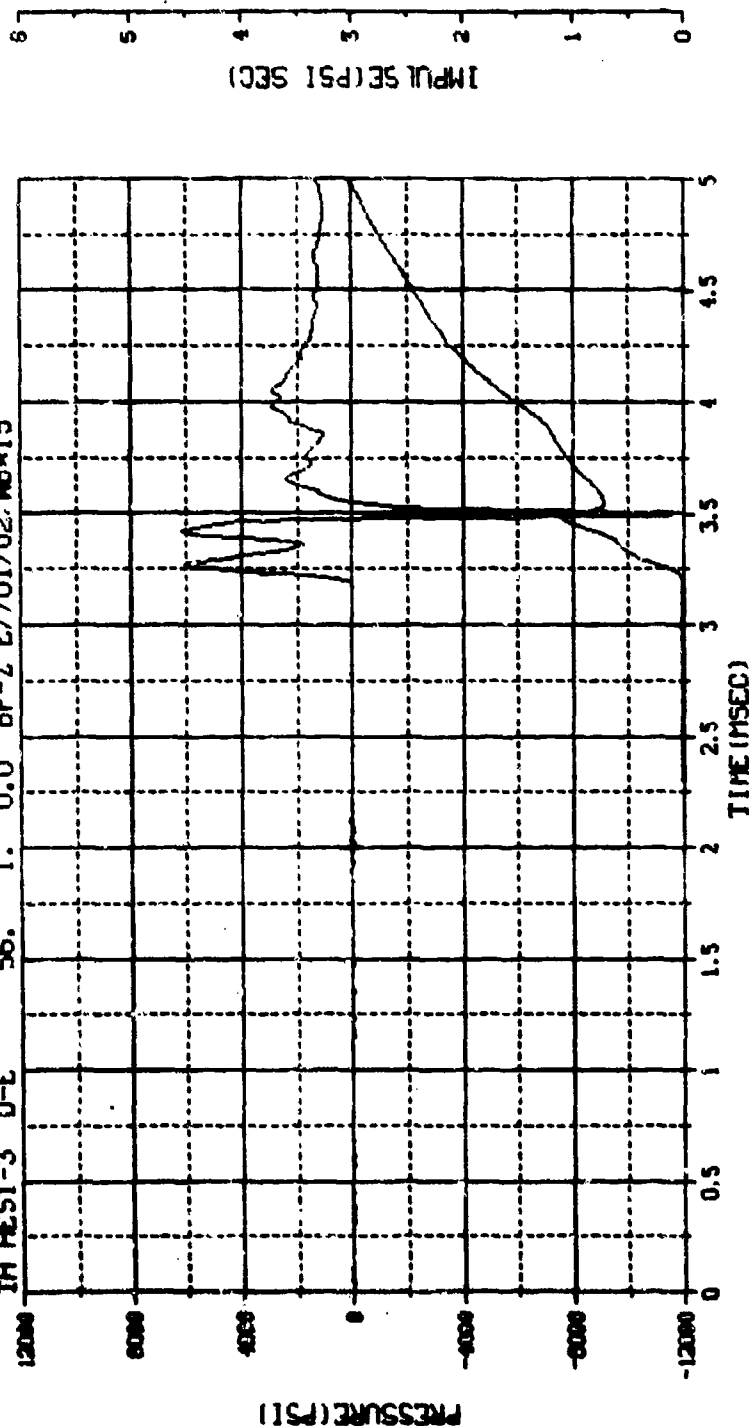


M.N. - 14	E.U. -0.000,6965.000	VSN-
TSKIP-12.640	DIGITS-0.000,614.250	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-28



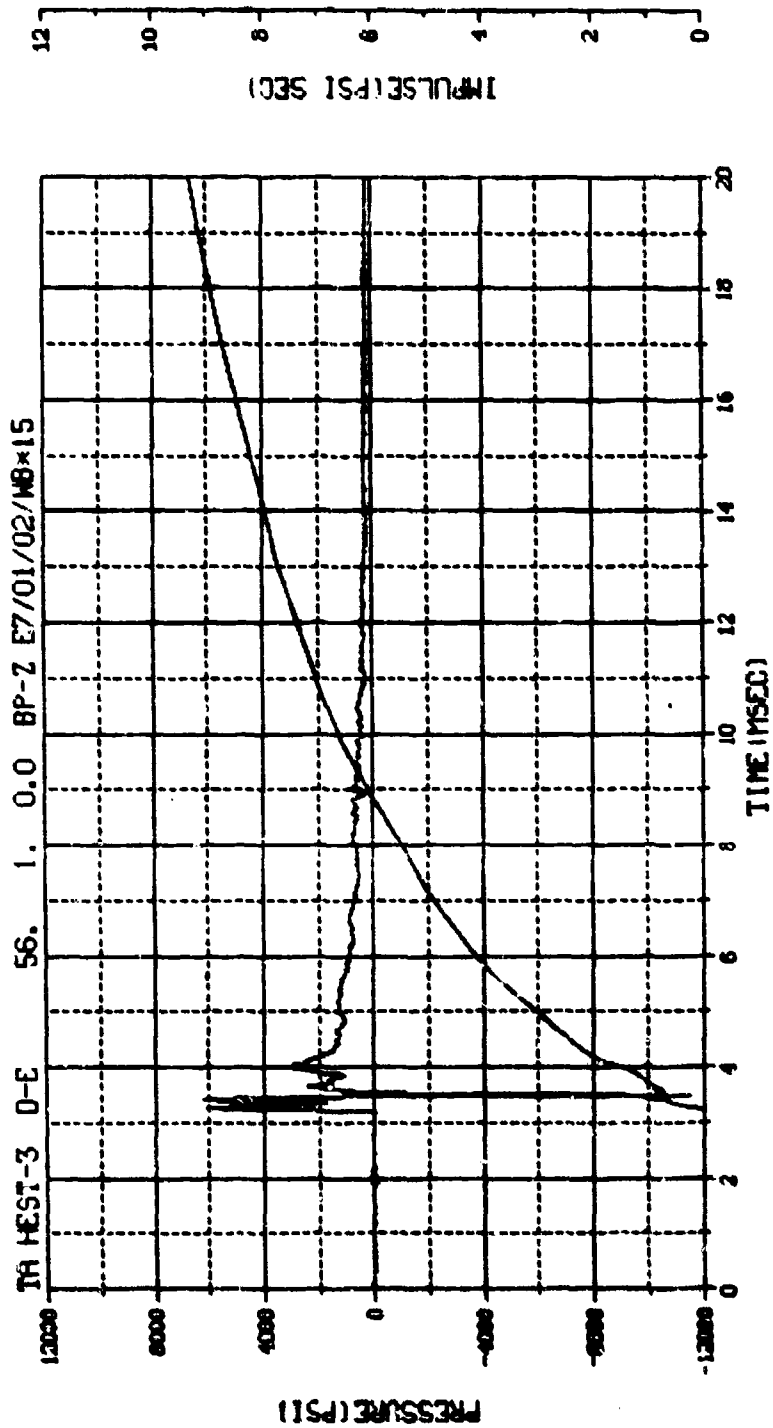
M.N. - 14	E.U. -0.000,6965.000	VSN-
TSKIP-12.640	DIGITS-0.000,614.250	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-28

TA HEST-3 0-E 56. 1. 0.0 BP-Z E7/01/02/MB-15

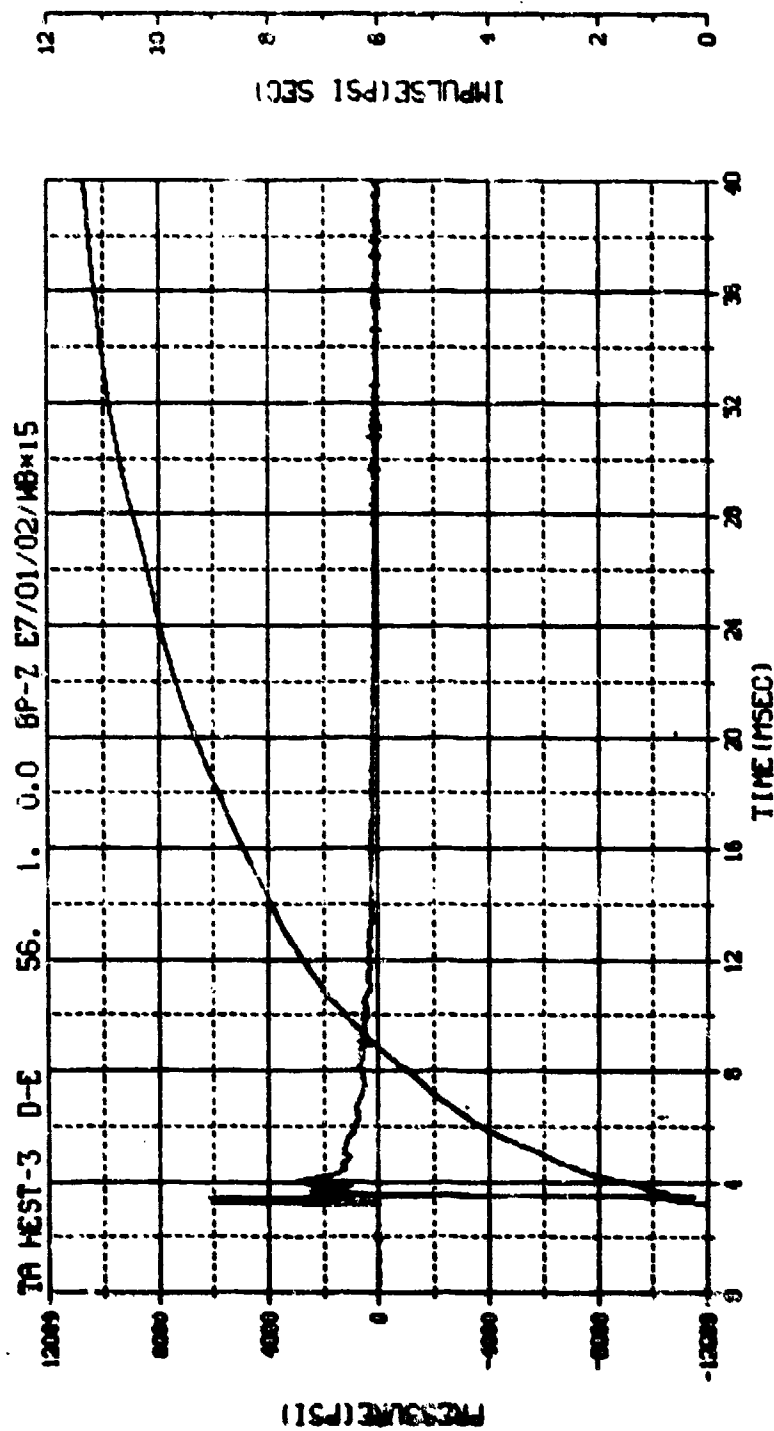


IMPULSE (PSI SEC)

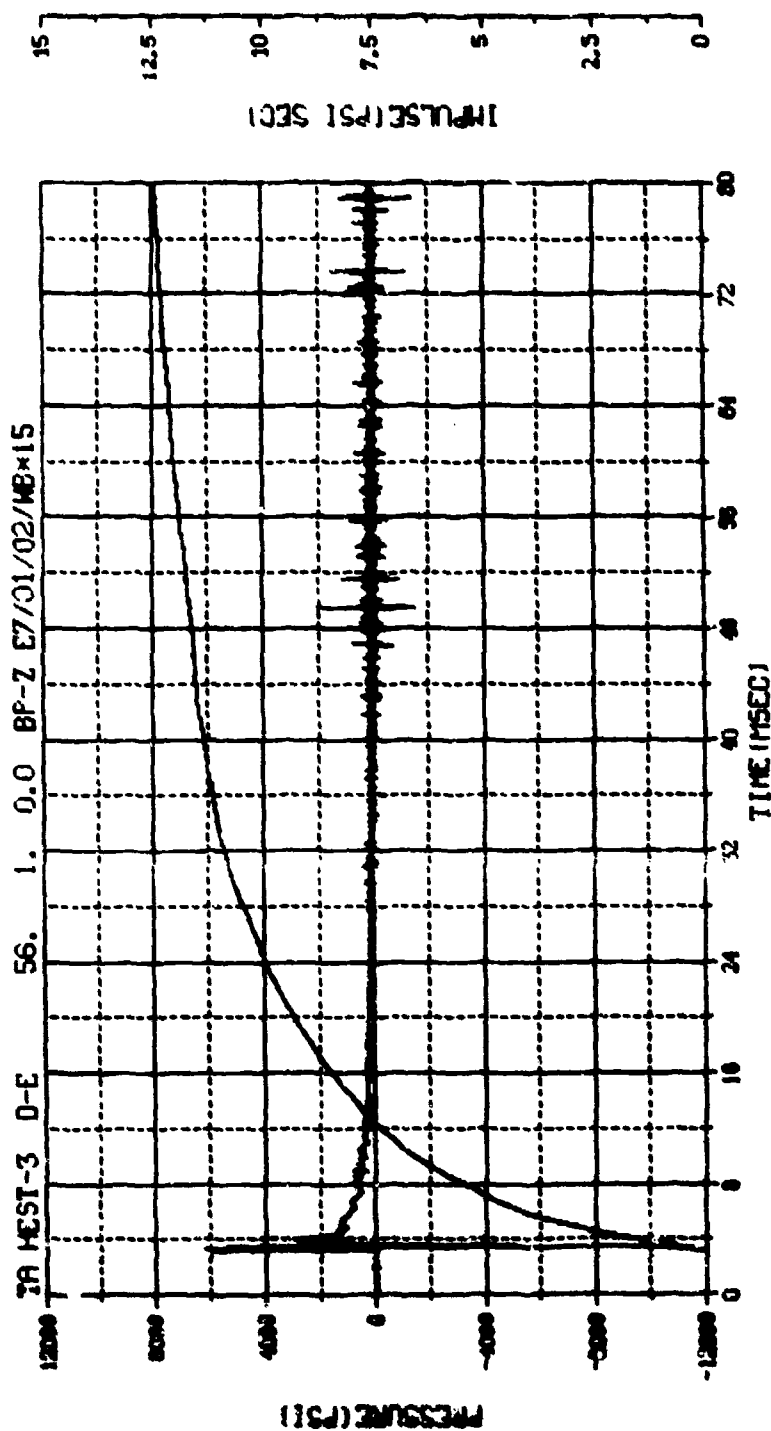
M.N. - 15 E.U. -0.000,4108.000 VSN-  
 TSKIP-12.640 DIGITS-0.000,675.000 TAPE22  
 S.R. -100.00 KHZ 8 50 AM, 2 MAY 78. FILE-4



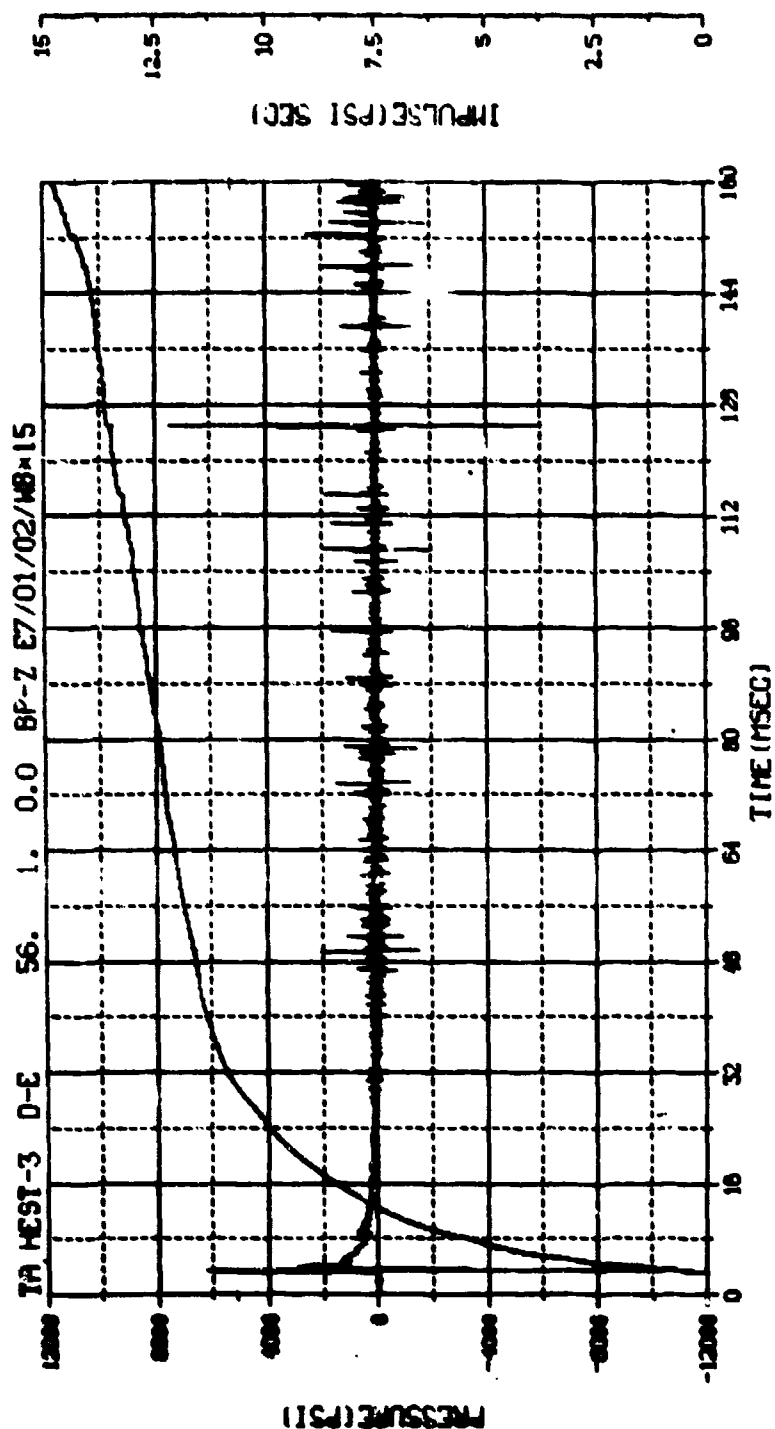
M.N. - 15	E.U. -0.000,4108.000	VSN-
TSKIP-12.540	DIGITS-0.000,675.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-4



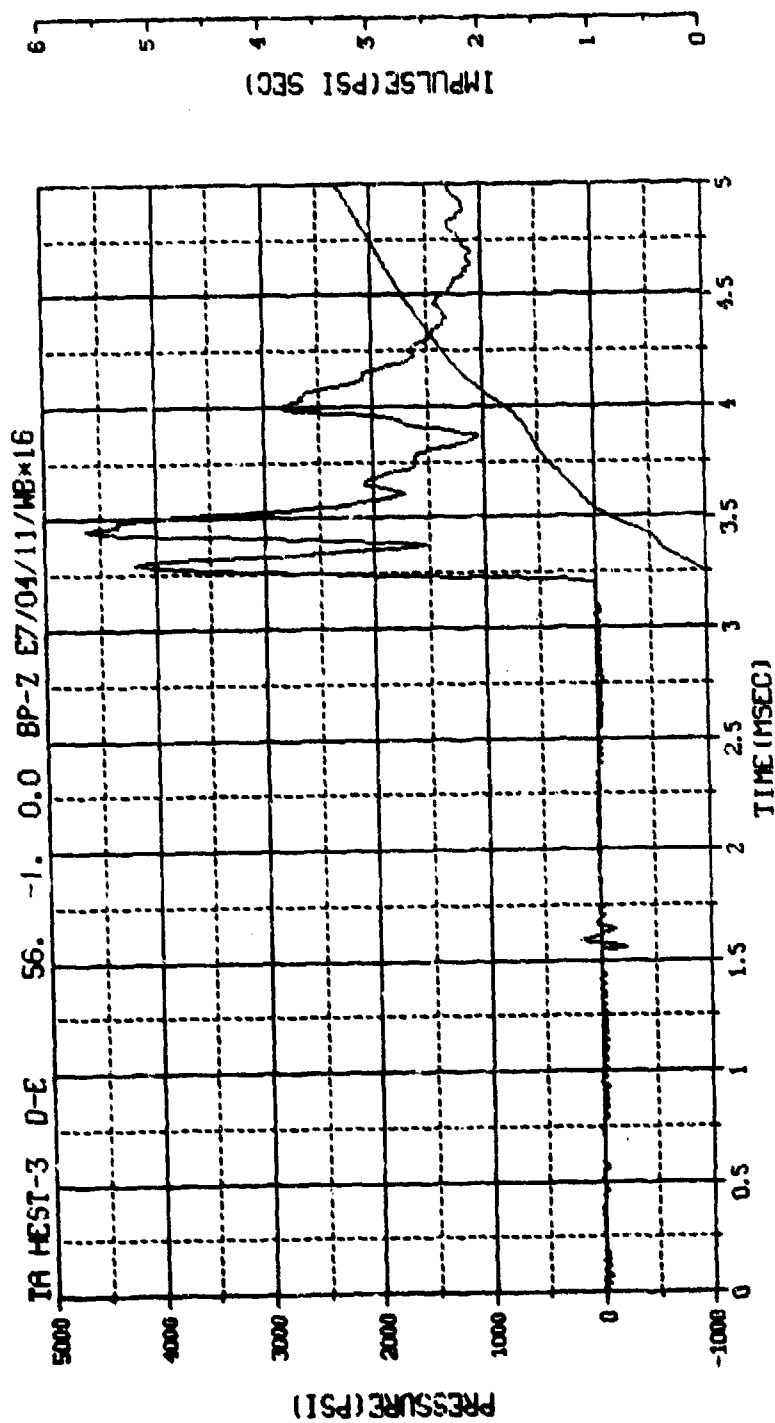
M.N. - 15	E.U. -0.000,4108.000	VSN-
TSKIP-12.640	DIGITS-0.000,675.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-4



N.N. - 15	E.U. -0.000,4108.000	VSN-
TSK/P-12.640	DIGITS-0.000,675.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-4

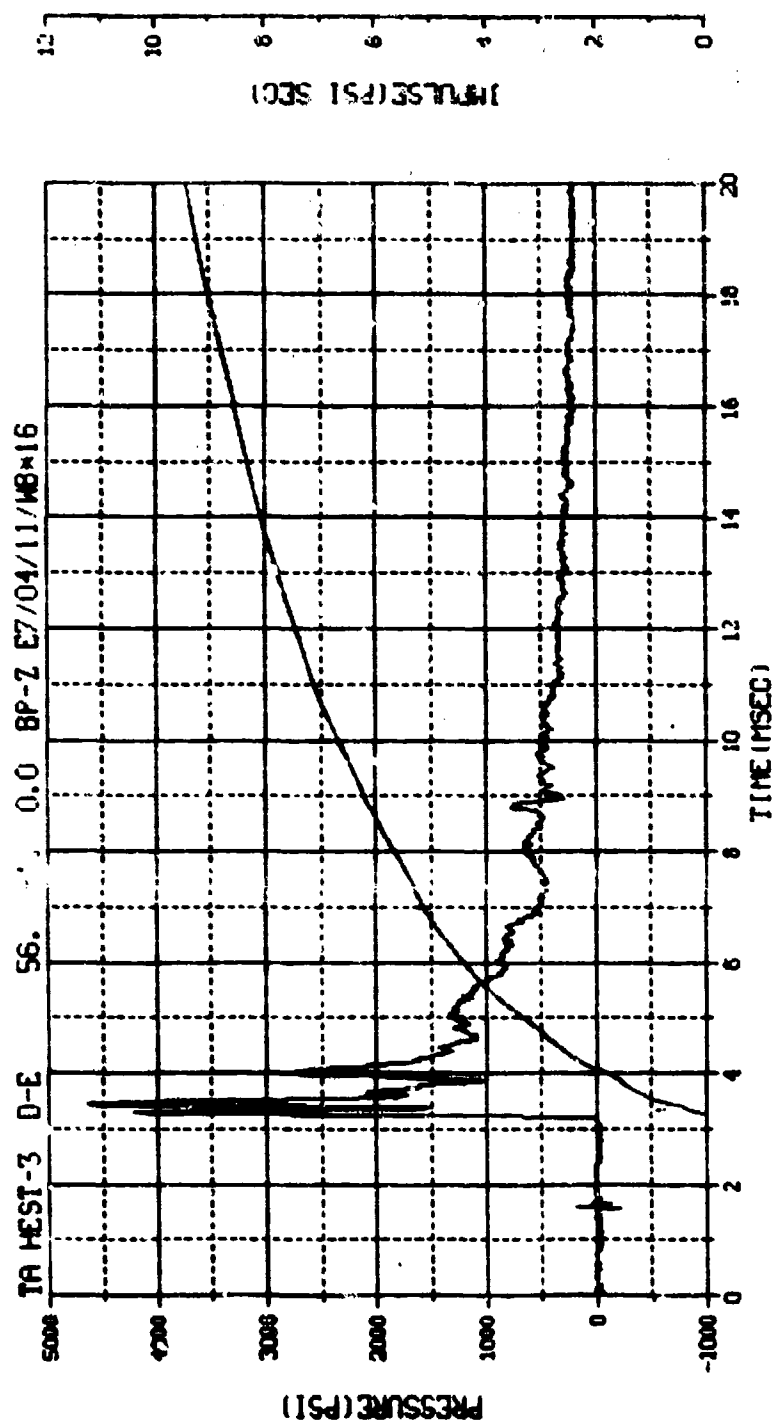


M.N. - 15	E.U. -0.000,4108.000	VSN-
TSKIP-12.640	DIGITS-0.000,675.000	TAPE22
S.R. -100.00 KHZ	8 50 FM, 2 MAY 78.	FILE-4

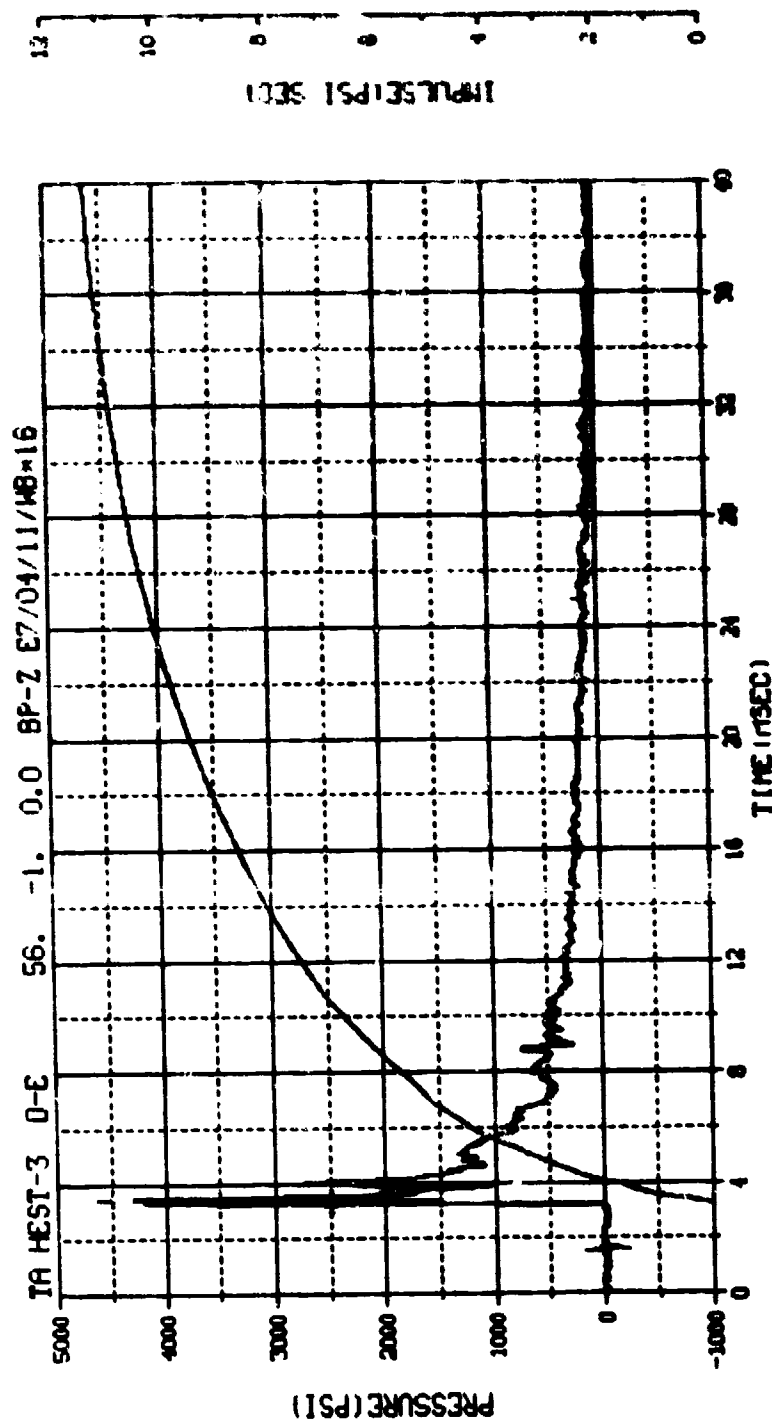


M.N. - 18	E.U. -0.000,4093.000	VSN- ED23
TSKIP-12.650	DIGITS-0.000,680.000	TAPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-46

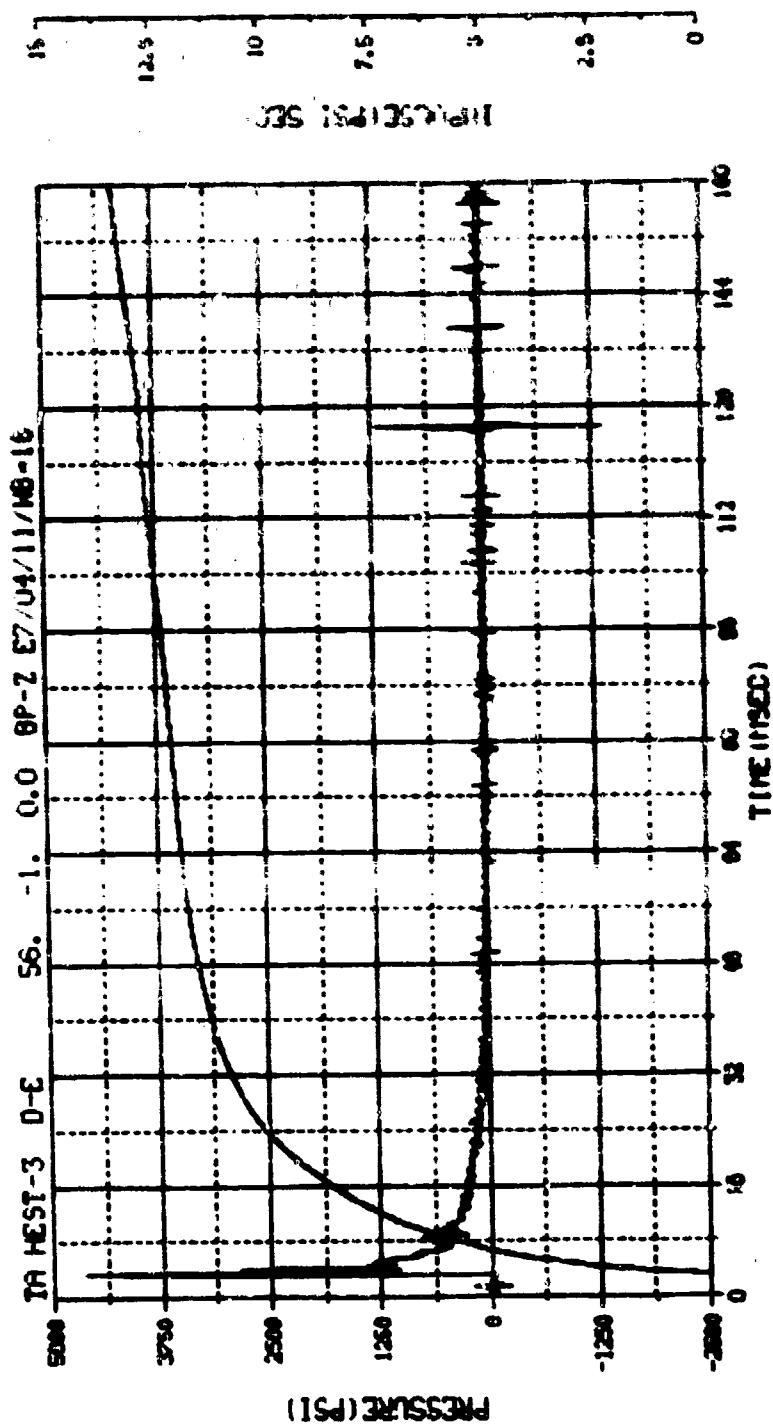




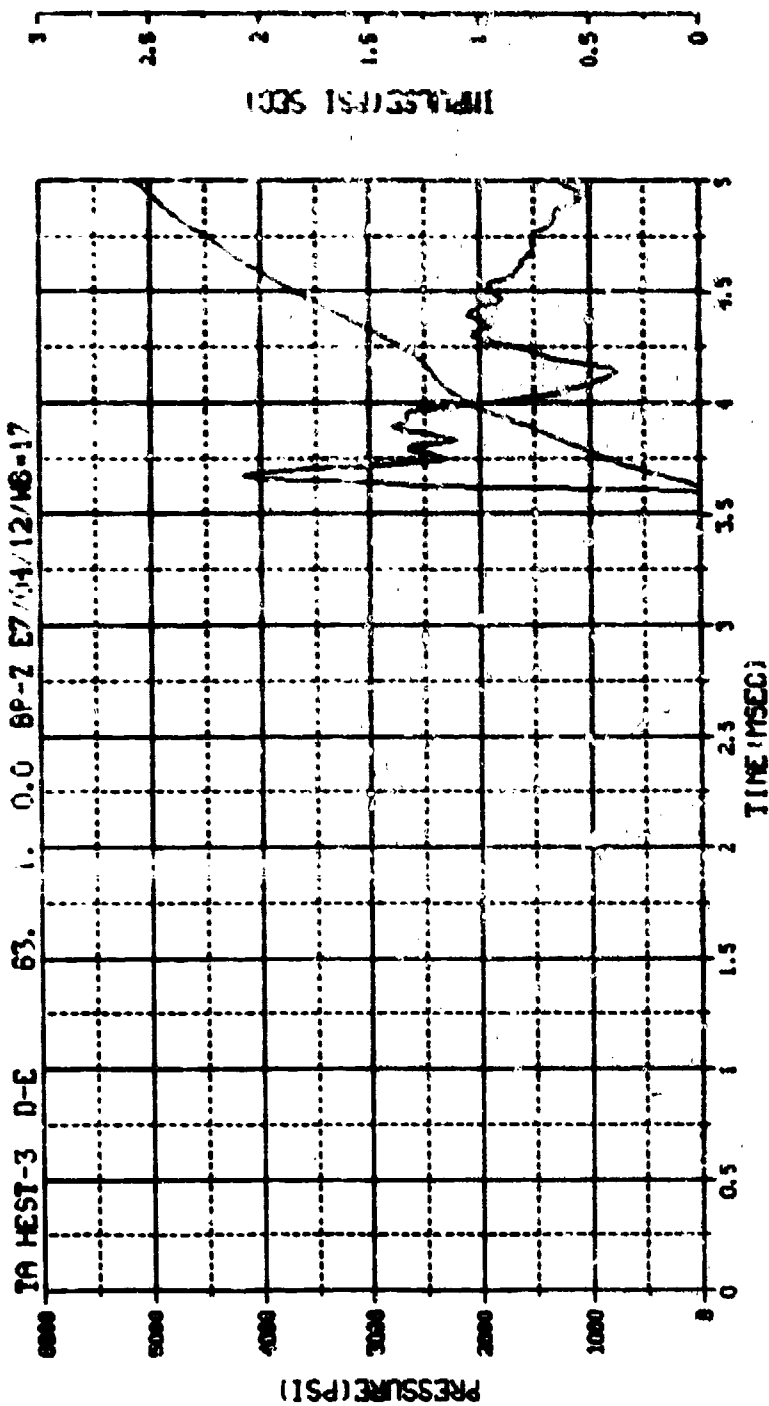
M.N. - 16	E.U. -0.000,4093.000	VSN- ED23
TSKIP-12.650	DIGITS-0.000,680.000	TAPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-46



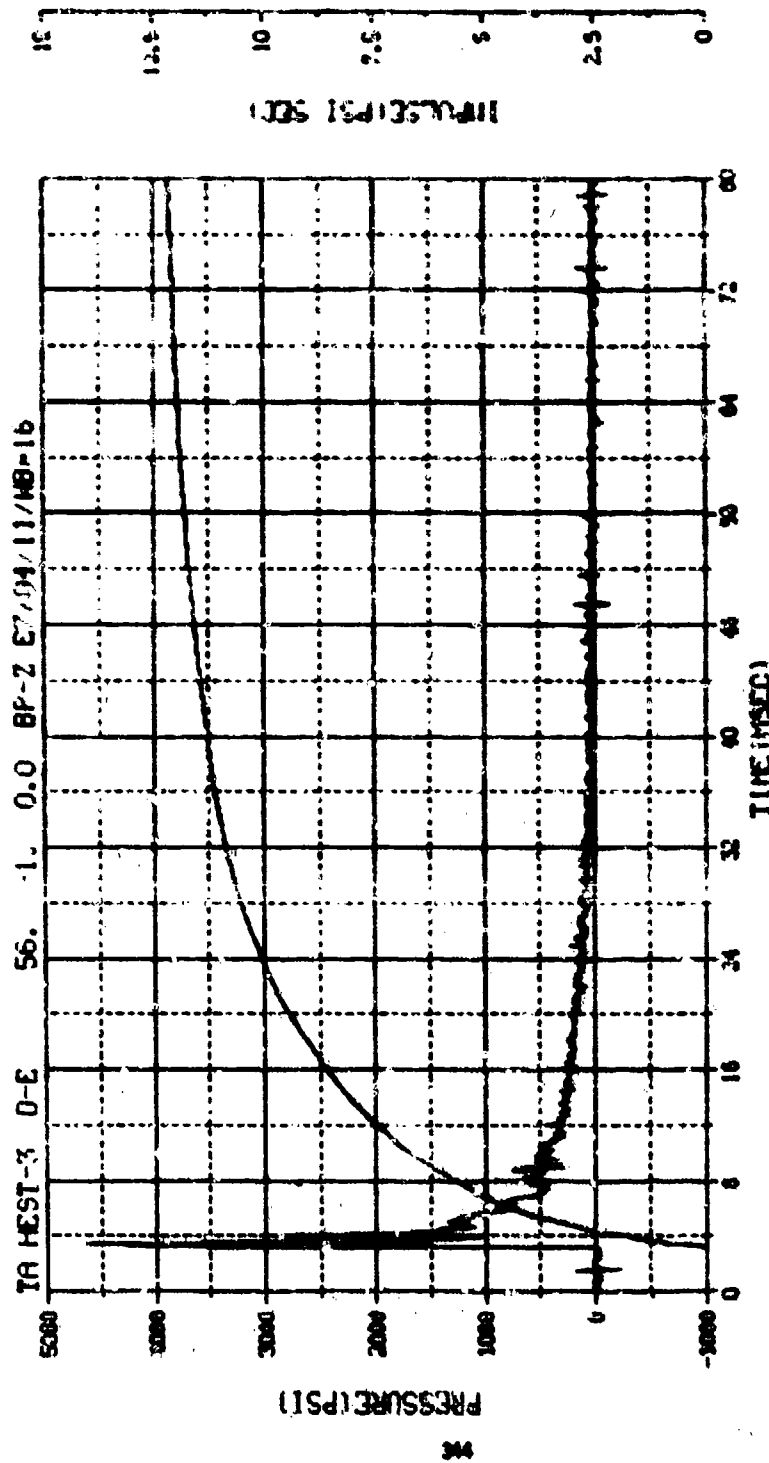
M.N. - 16	E.U. -0.000, 4093.000	VSN-
TSKIP-12.850	DIGITS-0.000, 680.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-46



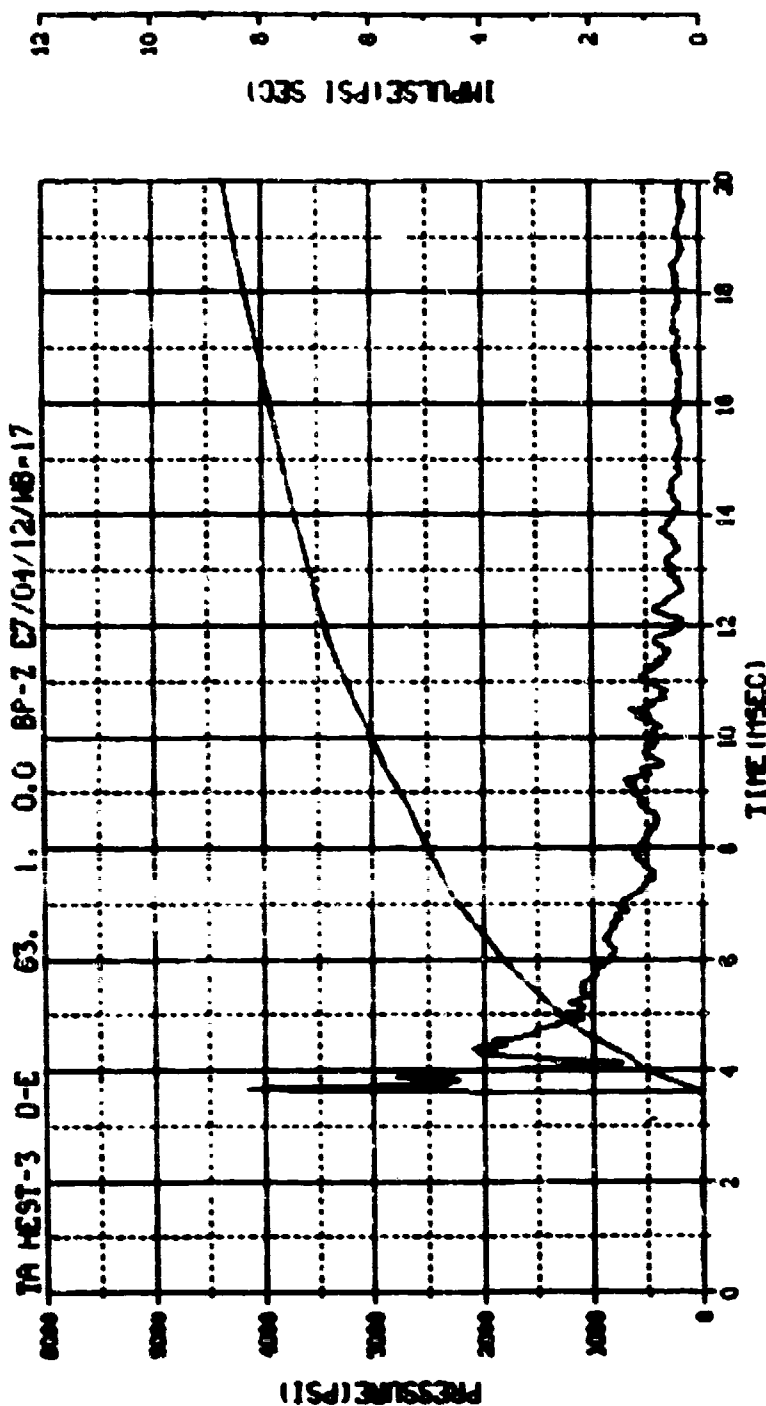
M.N. - 16	E.U. -0.000, 4093.000	VSN-
TSKIP-12.650	DIGITS-0.000, 680.000	TIME22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-46



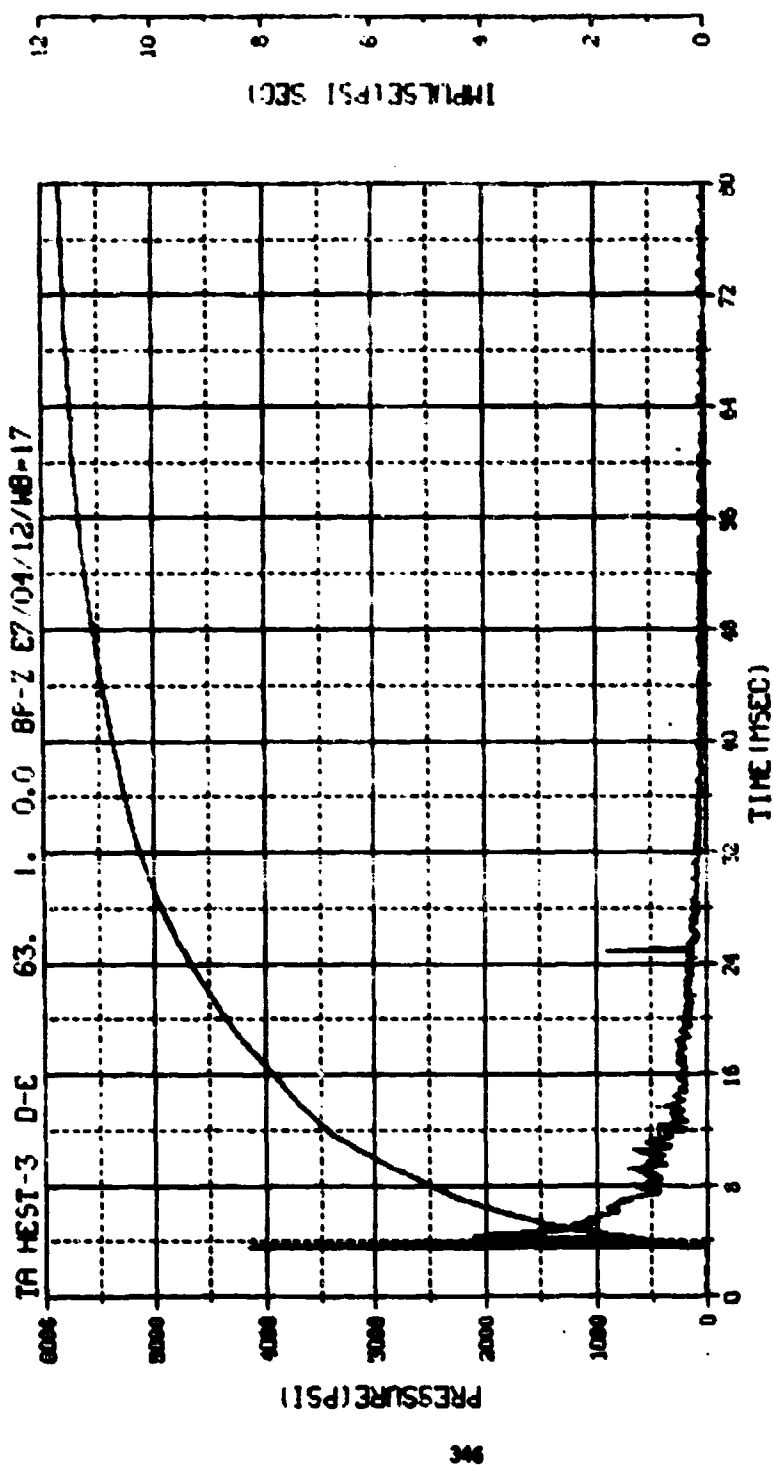
M.N. - 17	E.U. -0.000,4004.000	YSM- E0021
TSKIP-12.650	DIGITS-0.000,760.750	TAPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-48



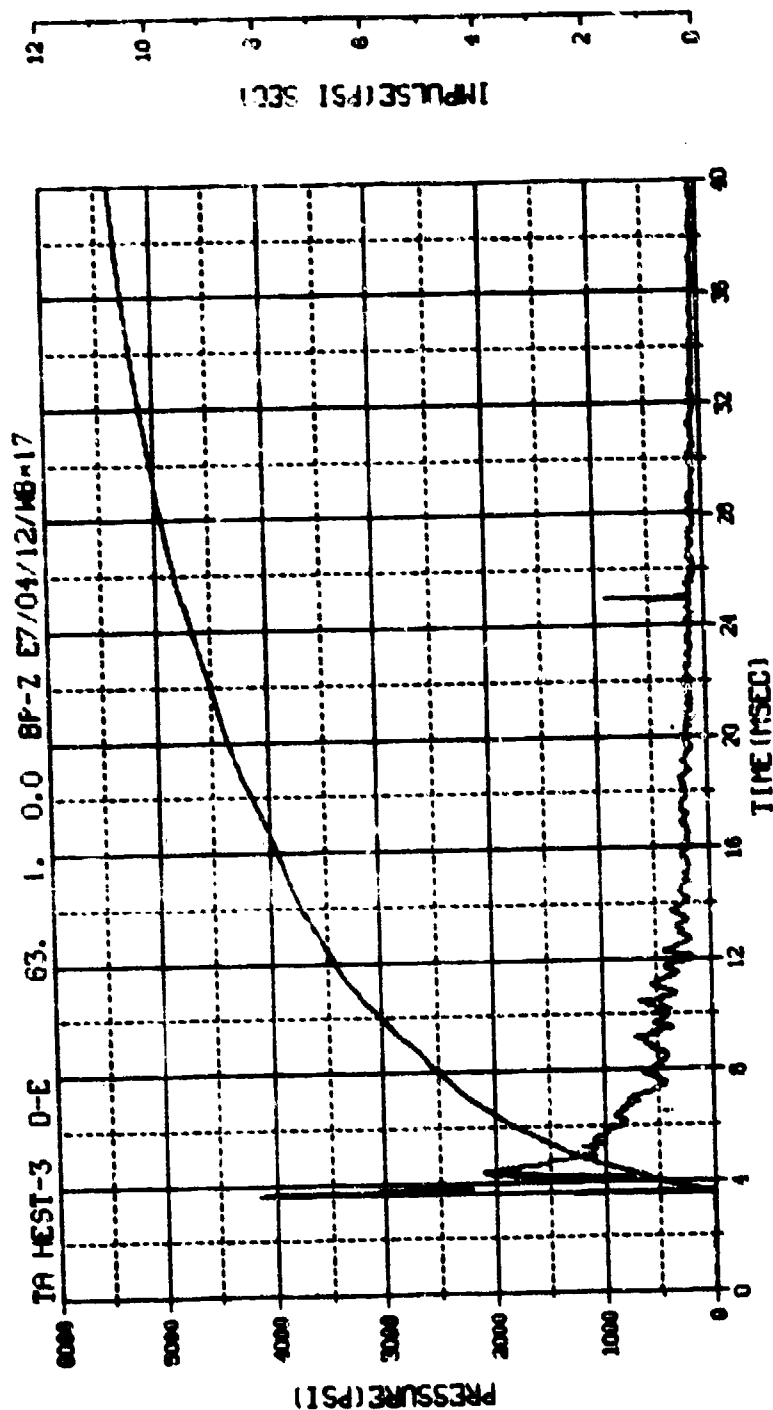
M.N. - 16	E.U. -0.000,4083.000	VSN-
TSK (P-12.650	DIG (13-0.000,680.000	TAPE22
S.R. -100.00 KHZ	6 50 AM, 2 MAY 78.	FILE-46



M.N. - 17	E.U. -0.000,4094.000	VSN- ED23
TSKIP-12.650	DIGITS-0.000,760.750	TAPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-48

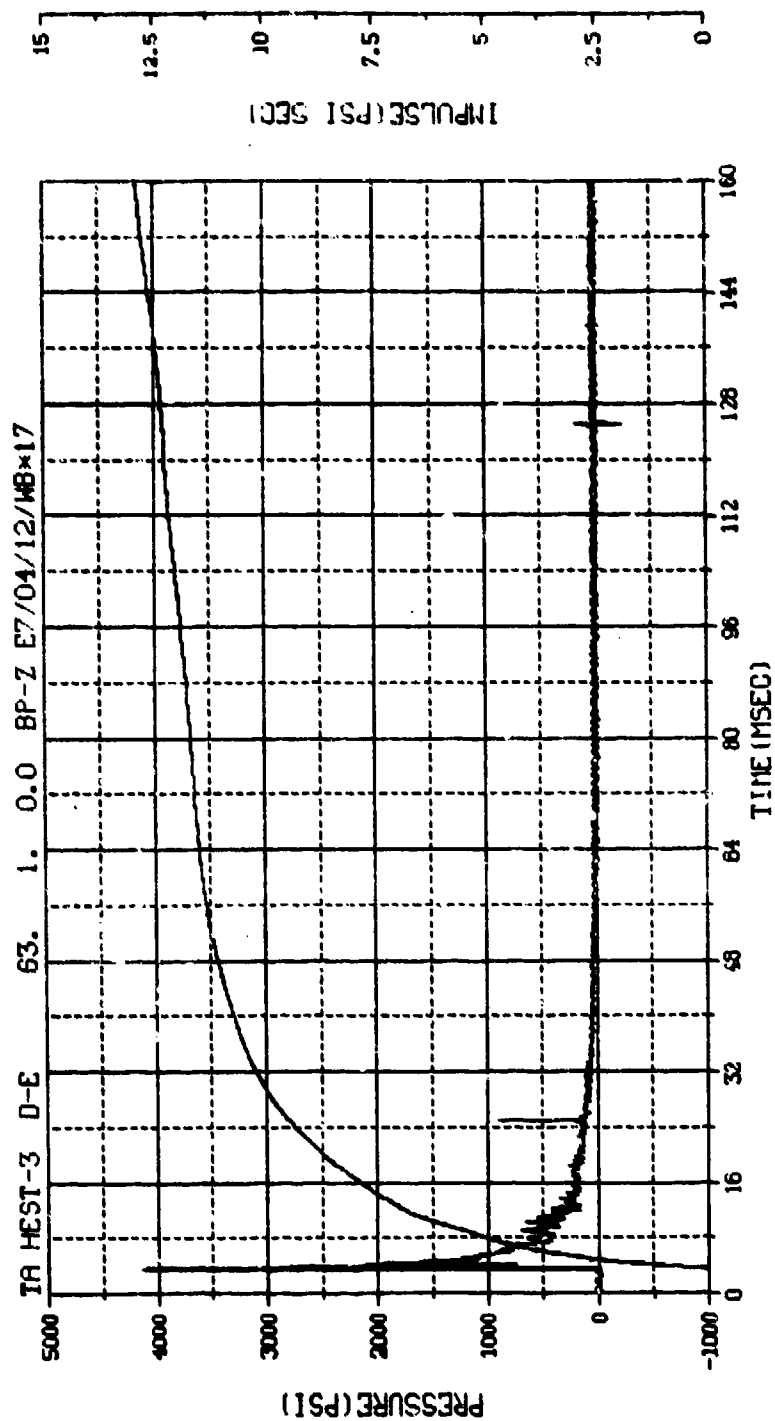


M.N. - 17	E.U. -0.000,4094.000	VSM-
TSKIP-12.650	DIGITS-0.000,760.750	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-48

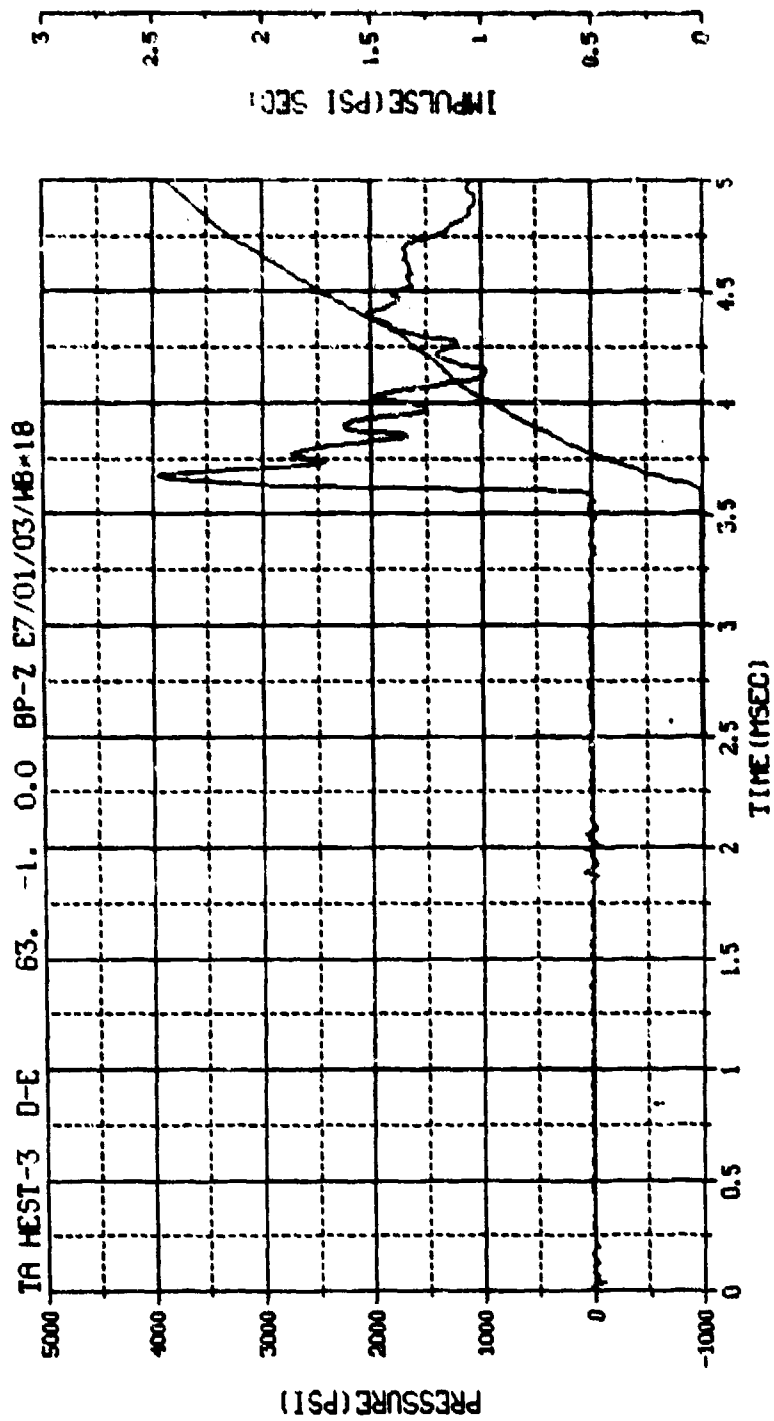


M.N. - 17	E.U. -0.000,4094.000	VSN-
TSKIP-12.650	DIGITS-0.000,760.750	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-48



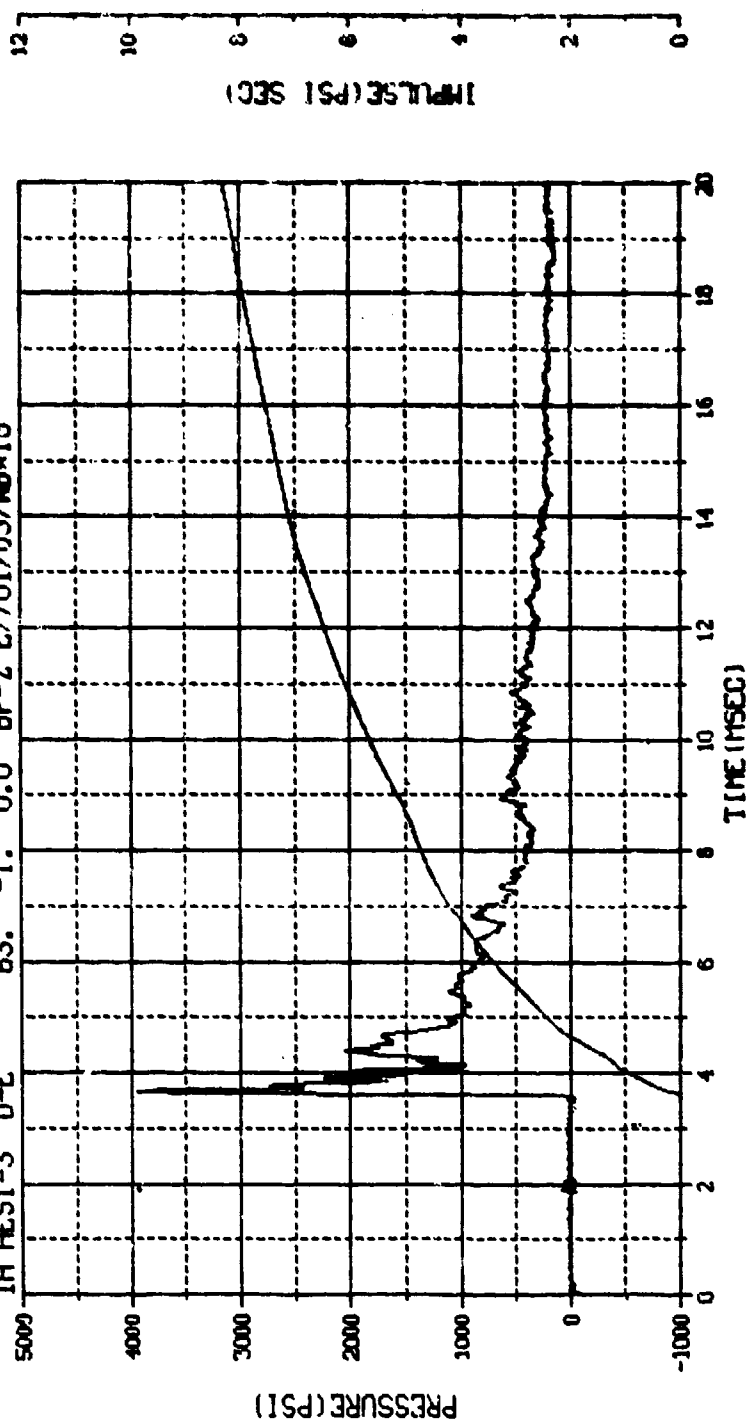


M.N. - 17	E.U. -0.000,4094.000	VSN-
TSKIP-12.650	DIGITS-0.000,750.750	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-48

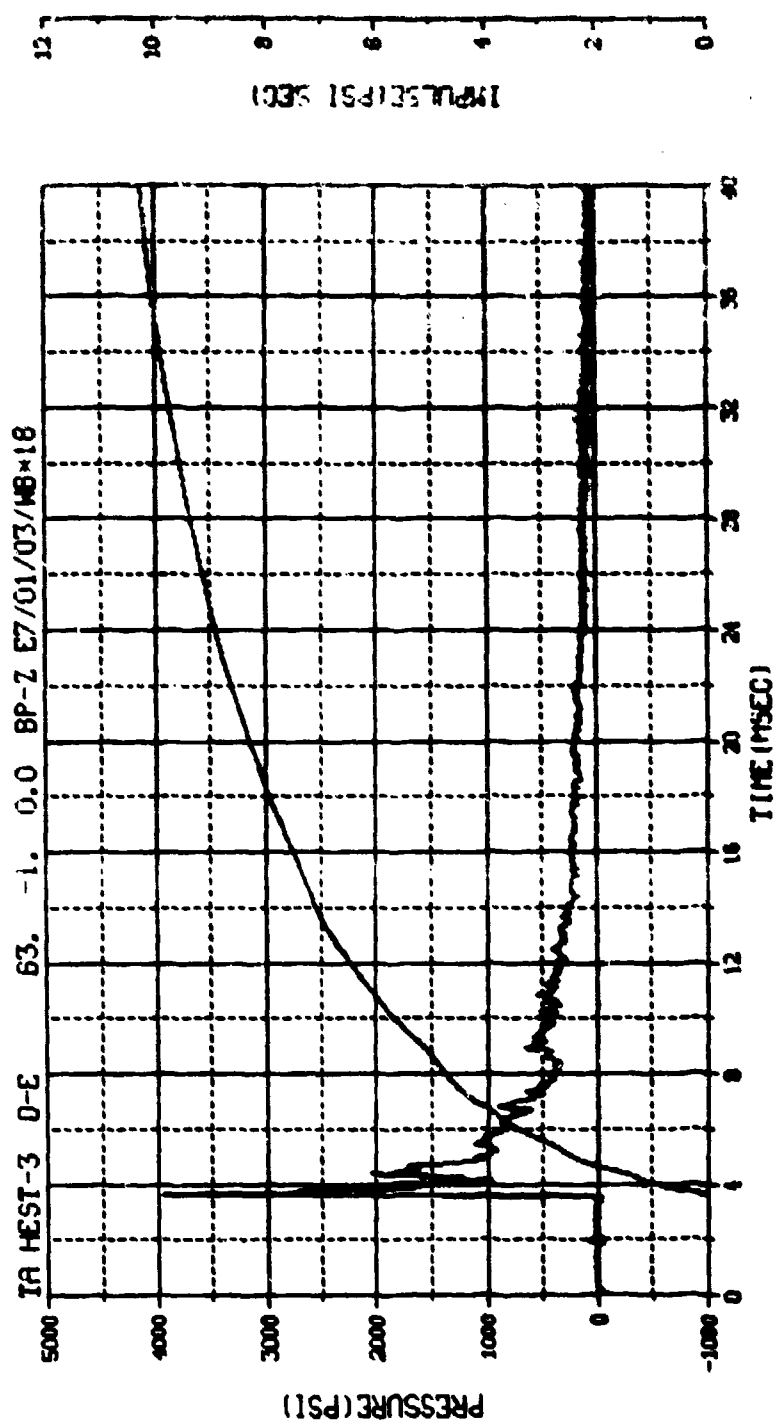


M.N. - 18	E.U. -0.000,4011.000	VSN-
TSKIP-12.640	DIGITS-0.000,763.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-6

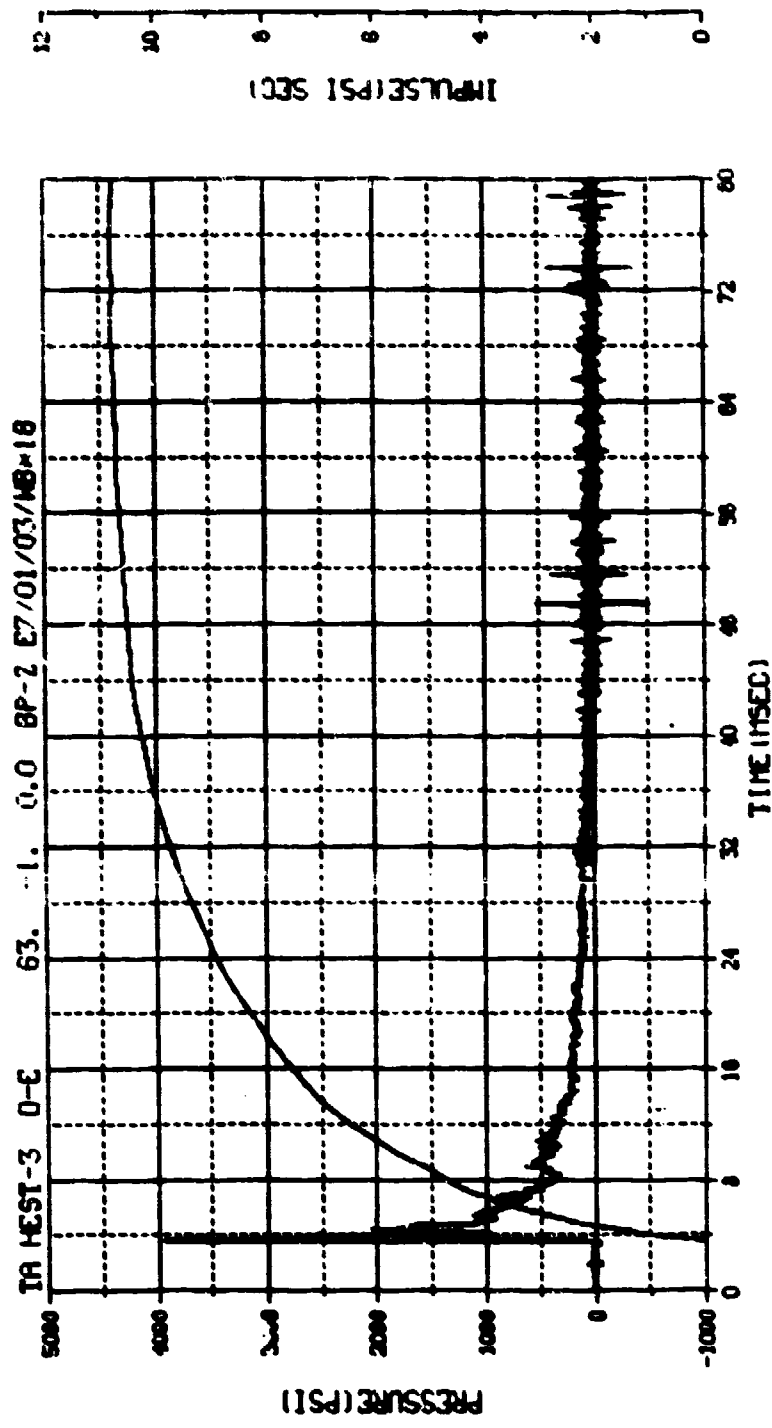
TA HEST-3 0-E 63. -1. 0.0 BP-Z E7/01/03/18x18



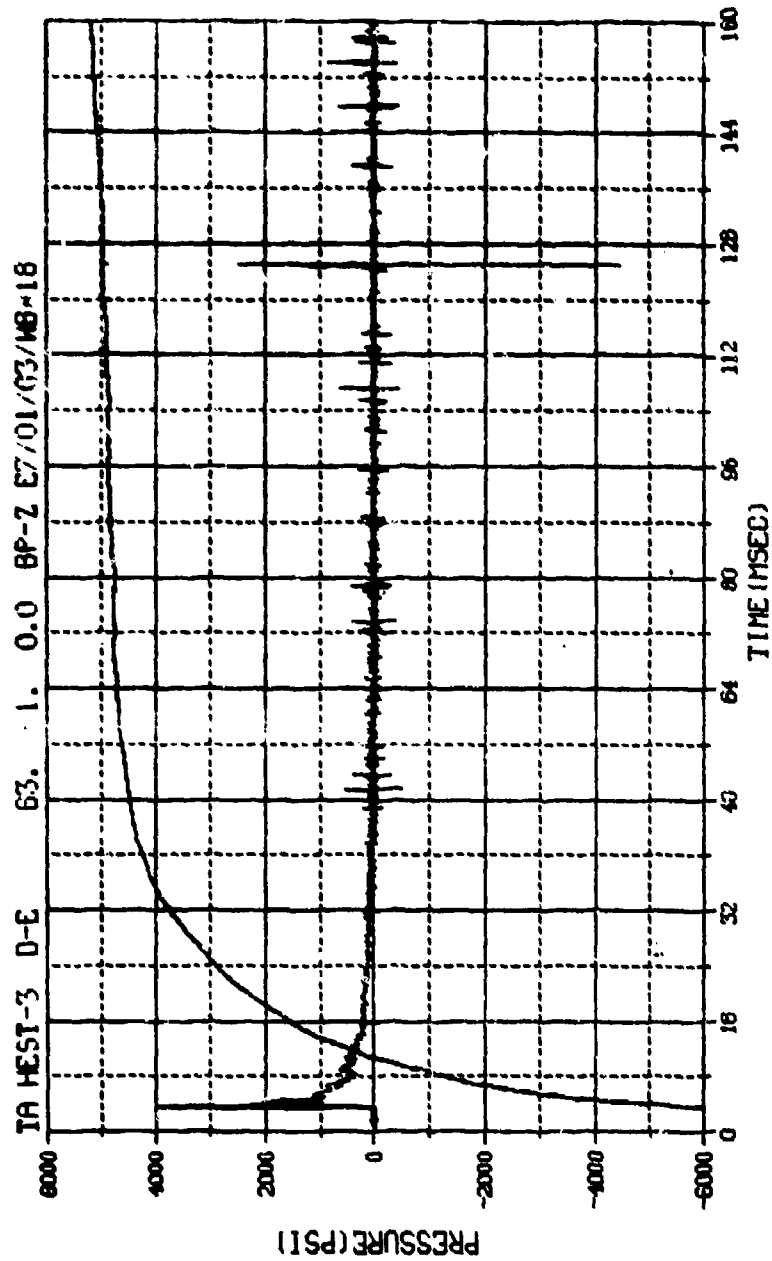
M.N. = 18 E.U. -0.000,4011.000 VSN-  
 TSKIP-12.640 DIGITS-0.000,763.000 TAPE 22  
 S.R. -100.00 KHZ 8 50 AM, 2 MAY 78. FILE-6



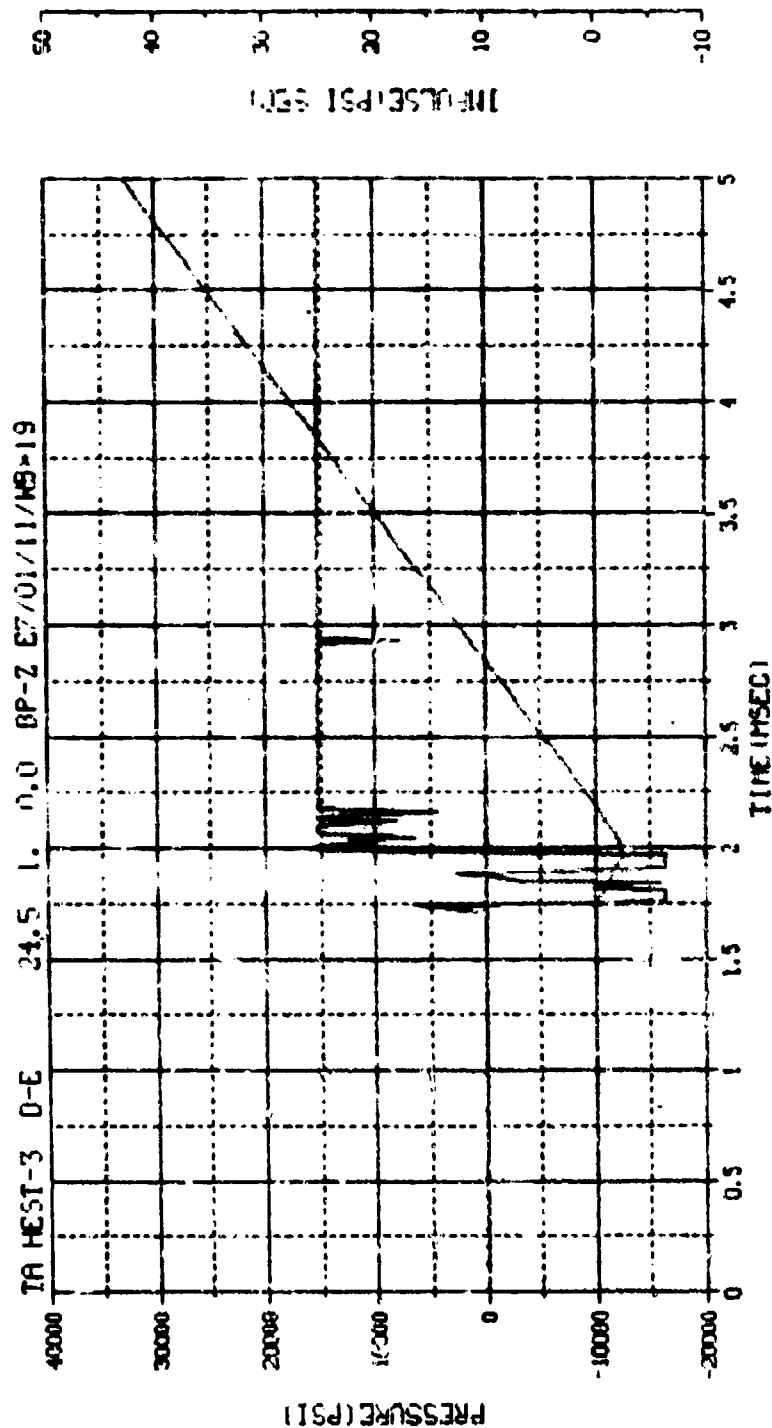
M.N. - 18	E.U. -0.000,4011.000	VSM-
TSK(P-12.640	DIGITS-0.000,763.000	TIME22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-6



M.N. - 18	E.U. -0.000,4011.000	VSN-
TSKIP-12.640	DIGIT-0.000,763.000	TAPE22
S.R. -100.00 KHZ	8 50 PM, 2 MAY 78.	FILE-6

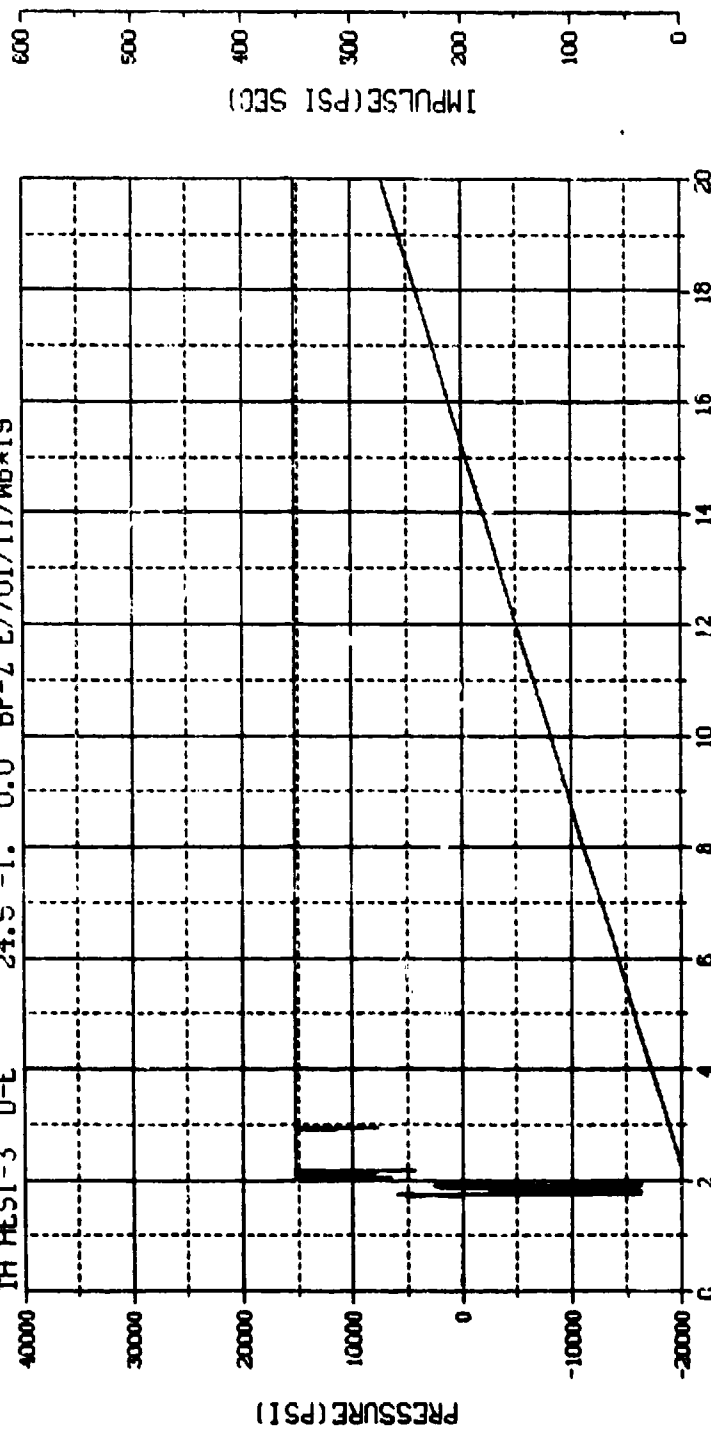


M.N. - 18	E.U. -0.000,4011.000	VSN-
TSKIP-12.640	DIGITS-0.000,763.000	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-6



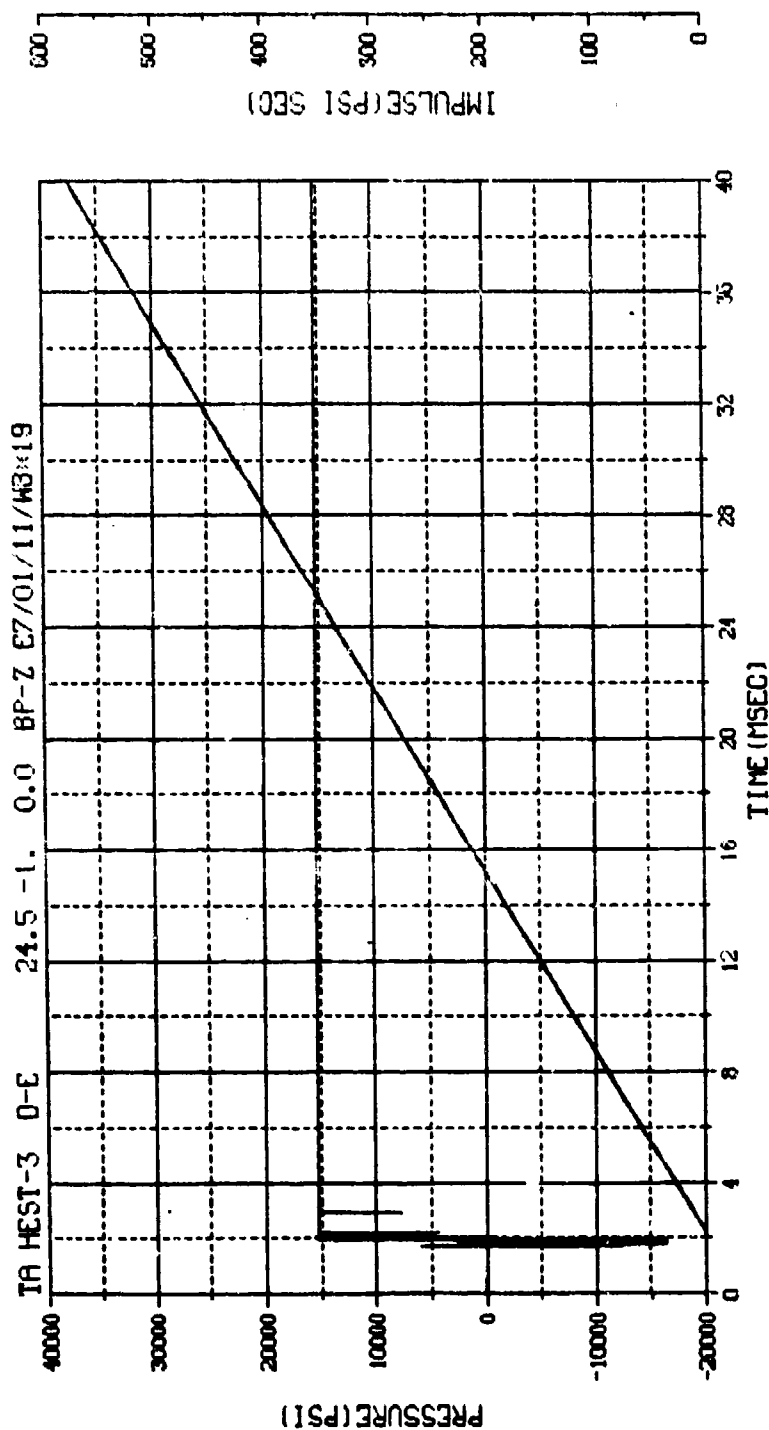
M.N. - 19	E.U. -0.000,5794.000	VSN-
TSK (F=12.640	DIG. -0.000,668.375	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-16

TA HEST-3 D-E 24.5 -1. 0.0 BP-Z E7/01/11/WB\*19

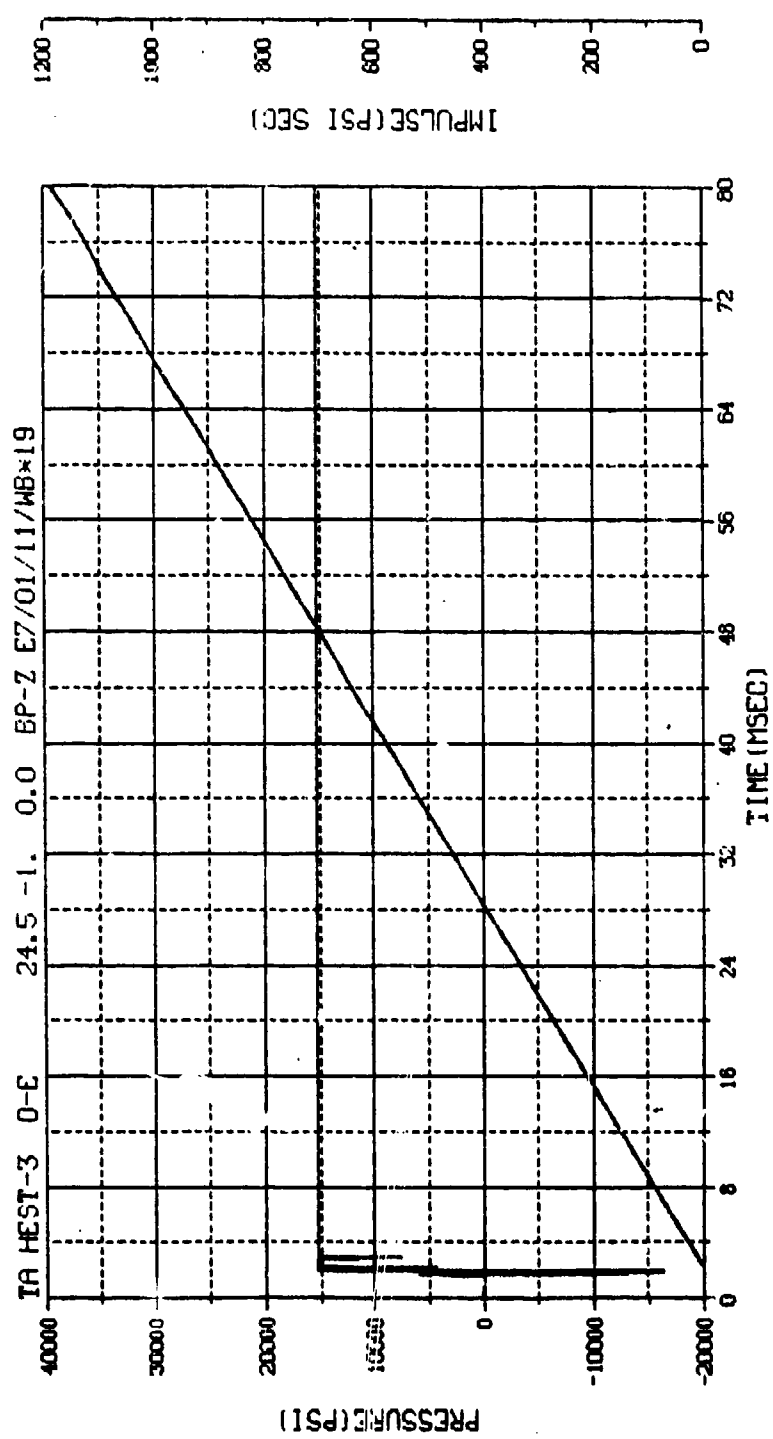


M.N. - 19	E.U. -0.000,5794.000	VSN-
TSK(P-12.640	DIGITS-0.000,668.375	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-16





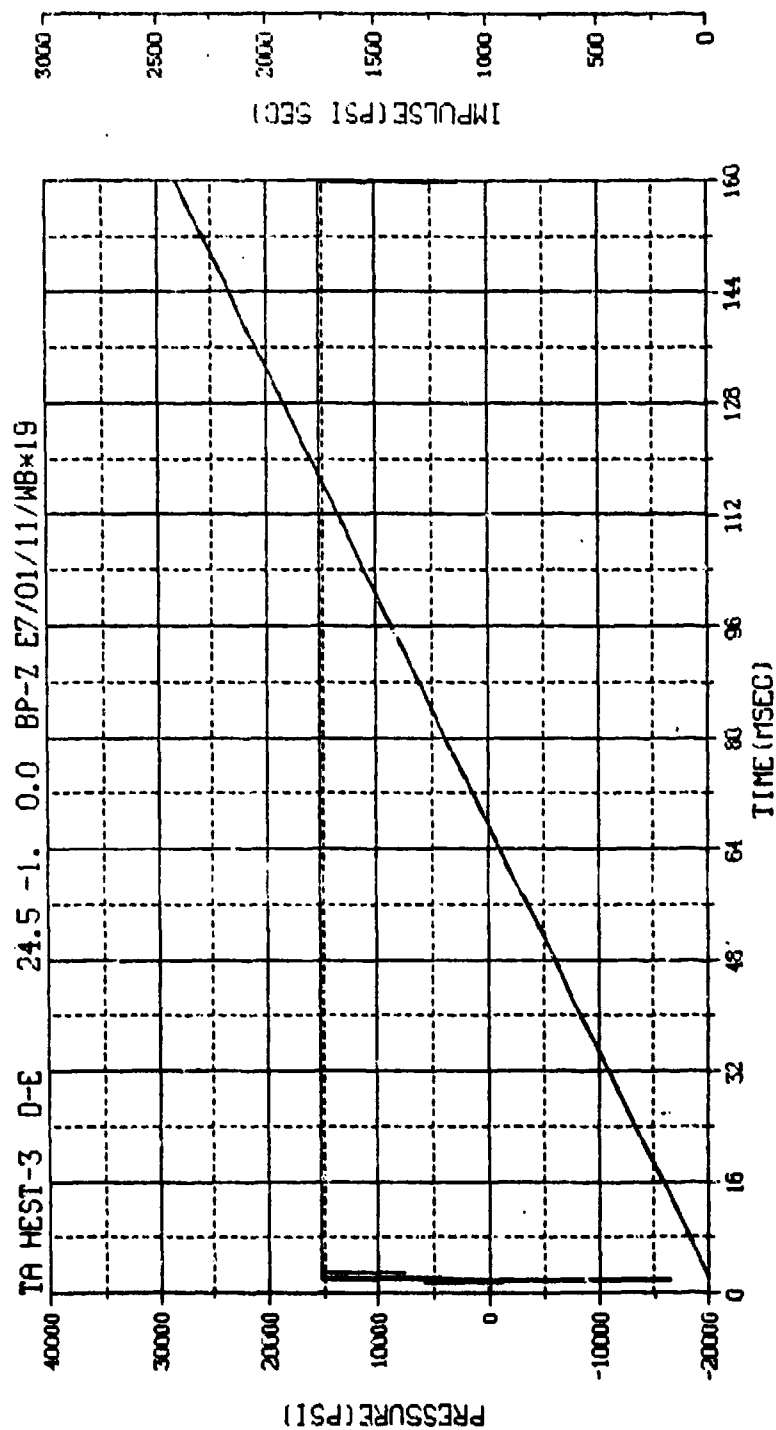
M.N. = 19	E.U. = 0.000,5794.000	VSN =
TSKIP=12.640	DIGITS=0.000,668.375	TAPE22
S.R. =100.00 KHZ	8 50 AM, 2 MAY 78.	FILE=16



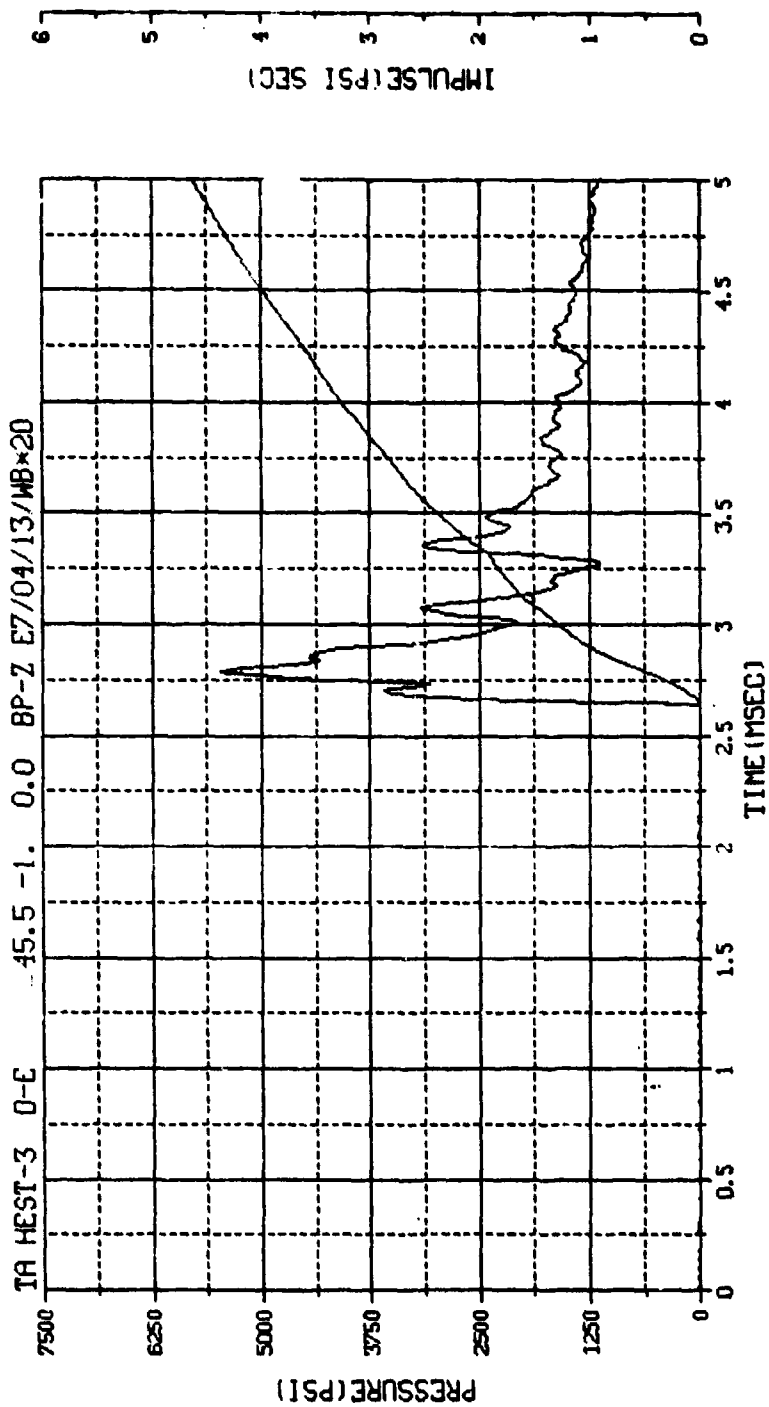
M.N. = 19  
 TSKIP=12.640  
 S.R. =100.00 KHZ

E.U. =0.000,5794.000  
 DIGITS=0.000,668.375  
 8 50 AM, 2 MAY 78.

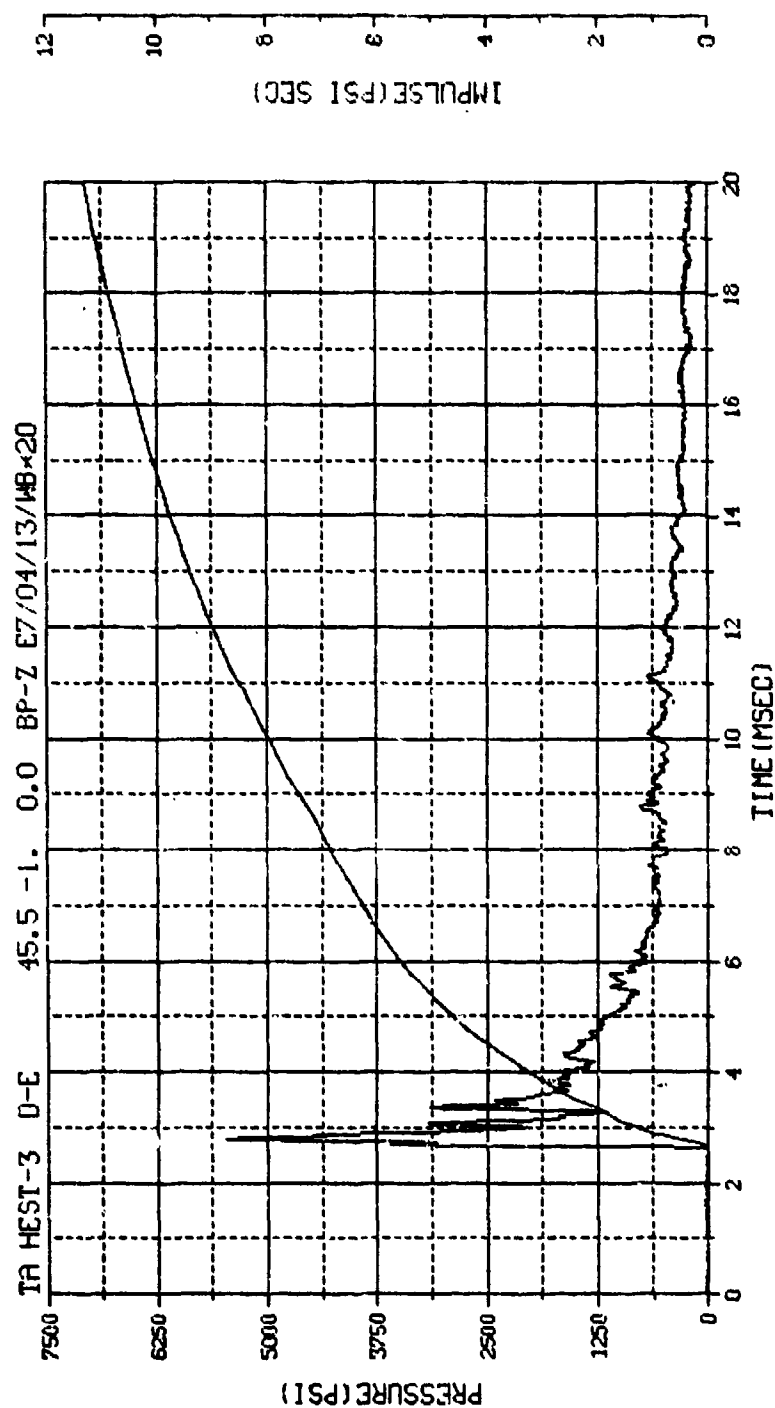
VSN=  
 TAPE22  
 FILE=16



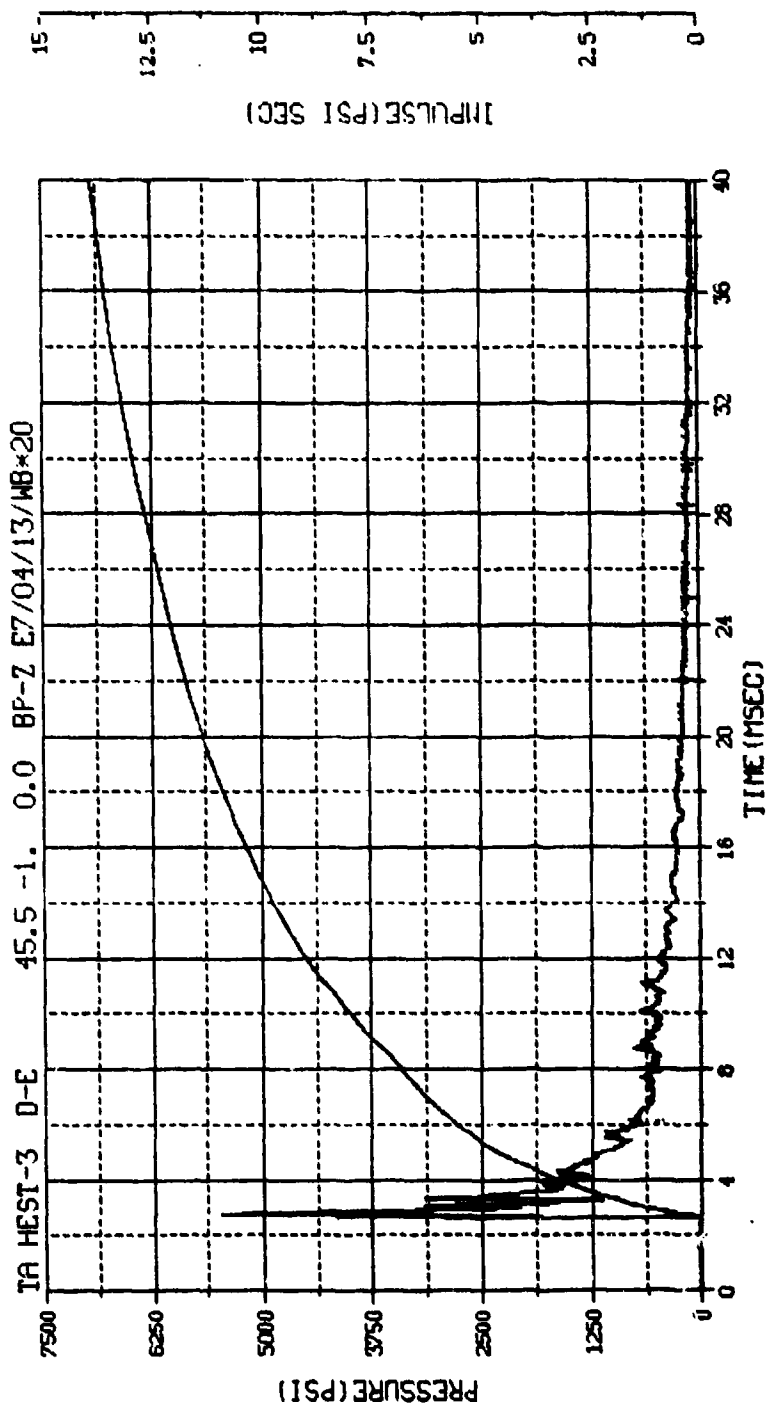
M.N. - 19	E.U. -0.000,5794.000	VSN-
TSKIP-12.640	DIGITS-0.000,668.375	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-16



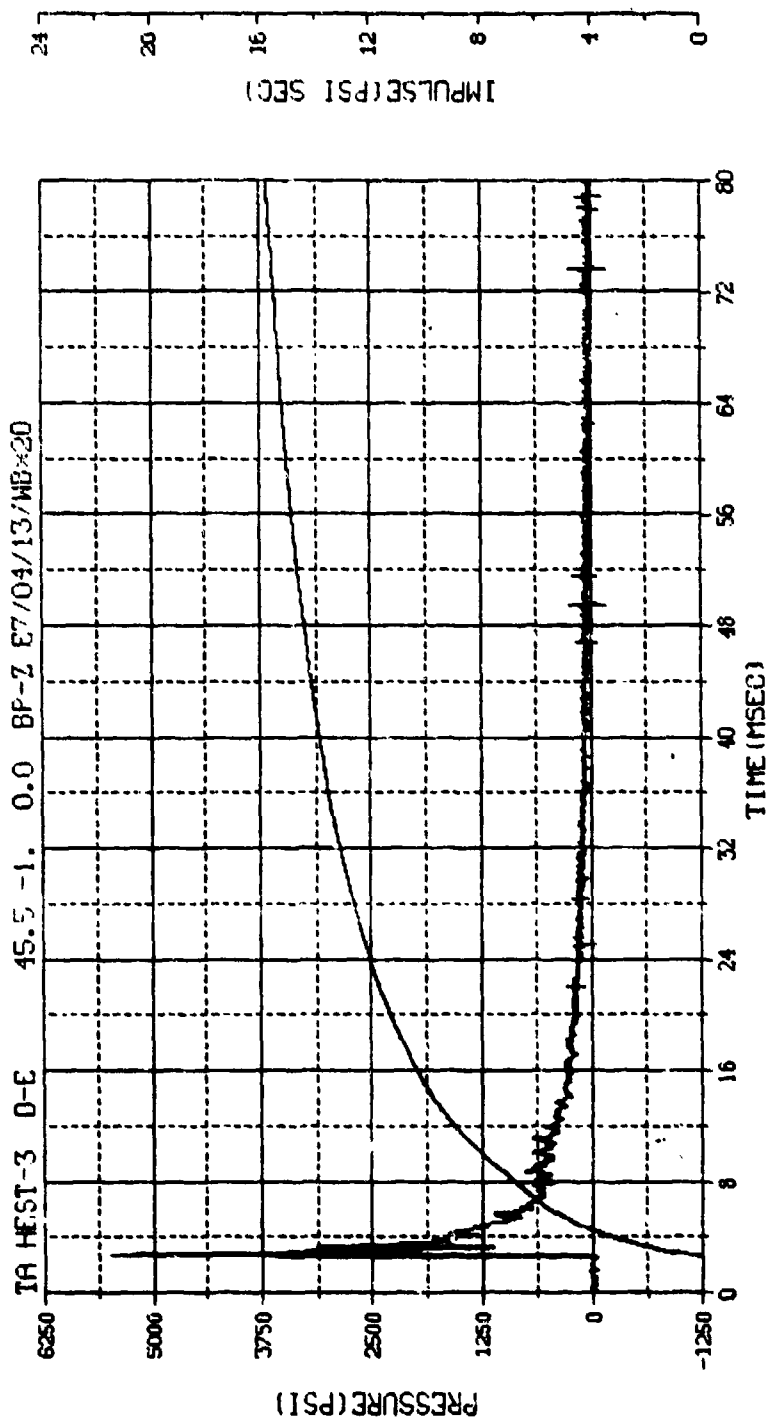
M.N. - 20	E.U. -0.000, 4175.000	VSN- ED23
TSKIP-12.650	DIGITS-0.000, 614.500	TAPE22
S.R. -100.00 KHZ	11 36 AM, 2 MAY 78.	FILE-50



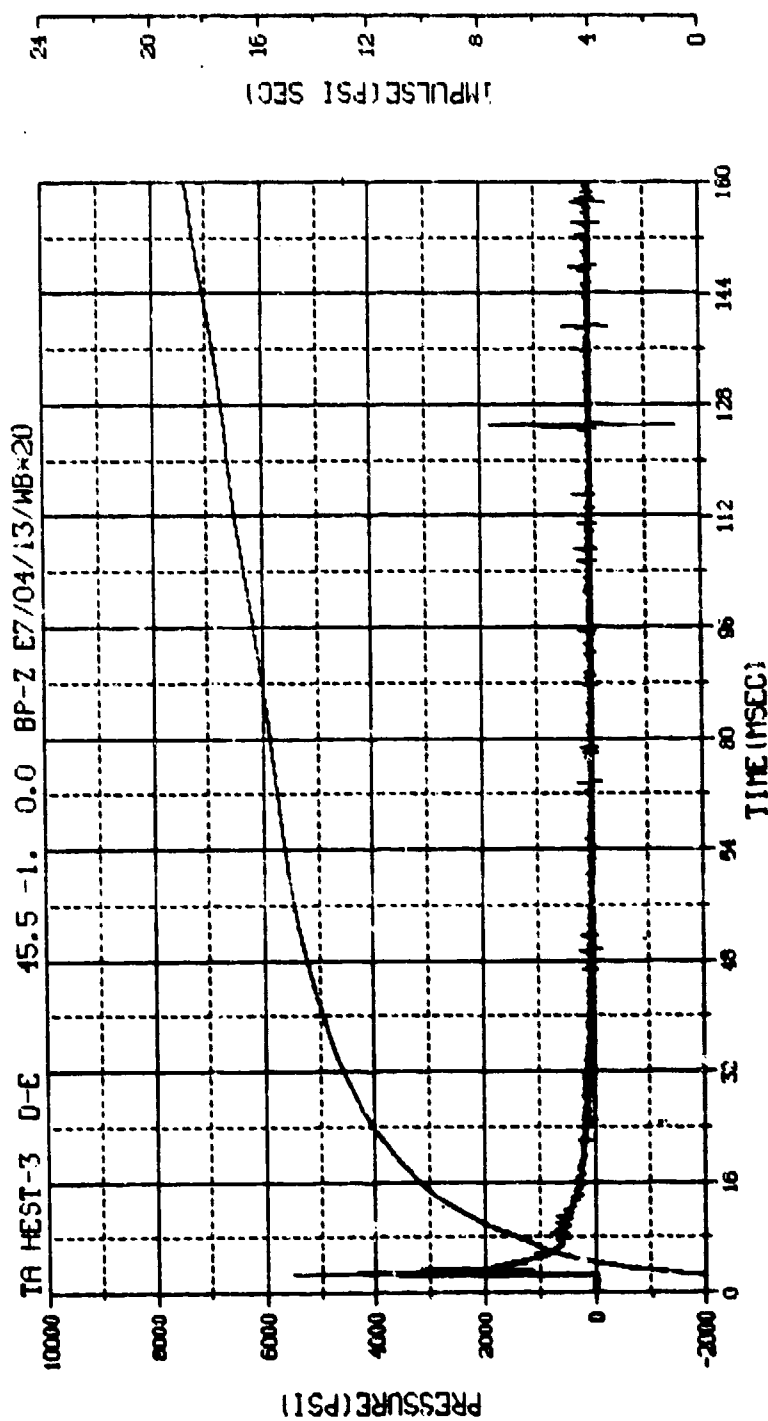
M.N. = 20 E.U. = 0.000, 4175.000 VSN= ED23  
 TSKIP=12.650 DIGITS=0.000, 614.500 TAPE22  
 S.R. =100.00 KHZ 11 36 PM, 2 MAY 78. FILE=50 1



M.N. - 20	E.U. -0.000,4175.000	VSN-
TSKIP-12.650	DIGITS-0.000,614.500	TAPE22
S.R. -100.00 KHZ	8 50 PM, 2 MAY 78.	FILE-50



M.N. - 20	E.U. -0.000,4175.000	VSN-
TSKIP-12.650	DIGITS-0.000,614.500	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-50



M.N. - 20	E.U. -0.000,4175.000	VSN-
TSKIP-12.650	DIGITS-0.000,614.500	TAPE22
S.R. -100.00 KHZ	8 50 AM, 2 MAY 78.	FILE-50